



**2017 CALTRANS STORMWATER AWARENESS, ATTITUDES & BEHAVIORS STUDY**  
**WAVE 2: MID-CAMPAIGN INTERIM RESULTS**

A Market Research Report  
Prepared For

*SAGENT MARKETING*

*June 23, 2017*

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## **BACKGROUND**

In the spring of 2016, a new phase of a stormwater pollution prevention outreach campaign was initiated by the California Department of Transportation (Caltrans) and Sagent Marketing. The new phase aims to develop and implement a broad campaign that discusses not only trash, but other stormwater pollutants of concern. The campaign seeks to educate Californians about the sources and pathways of stormwater pollution to the state's waters, and the impact of stormwater pollution on receiving waters. Ultimately, it seeks to change behaviors and habits of the traveling public to reduce stormwater pollution in and around the state highway system.

In three stages throughout the campaign, market research will be conducted to assess the public's understanding, attitudes and behaviors toward protecting California's water quality and to measure awareness and influence of the Caltrans Stormwater Public Education Campaign. By quantifying these measures immediately before, during, and after the campaign, this research will track potential change over time, including both diagnostic interim and evaluative post-campaign measures. This research will provide insight into similarities and differences regionally and demographically, including those by gender, age, household income, region, with an added focus on Hispanics by language/media used.

This "Wave 2" report presents the findings from the mid-campaign phase of quantitative research conducted in May 2017. Results of this interim wave are compared to those of a baseline wave conducted with an independent matched sample in February 2016.

A final post-phase will be initiated at the conclusion of the campaign, assessing potential changes on these measures over time as a result of the campaign's ultimate impact.

## **OBJECTIVES**

1. To measure California highway drivers' awareness, attitudes and behaviors when it comes to maintaining clean highways for the purpose of clean waterways and water quality.
2. To assess the extent of any potential shift in such awareness, attitudes and behaviors as a result of the campaign.
3. To examine similarities and differences in the above areas regionally and demographically, specifically with regard to motorists' ethnicity/primary language, socioeconomic status (as measured by household income), age and gender, and market.

## **METHODOLOGY**

### *SAMPLE*

For the interim wave (Wave 2) a total of 313 California highway drivers were interviewed statewide from May 18-25, 2017. All were at least 18 years of age and had driven on state freeways or highways in the past 30 days. All were residents of one of six major California DMAs. Regions sampled include Los Angeles (D7), Orange County (D12), the Inland Empire (D8), San Diego (D11), San Francisco-Oakland-San Jose (D4), and Sacramento (D3). Age and gender quotas were applied to each region to ensure a reasonably equivalent split by gender (male/female) and age (18-29, 30-39, 40-49).

A pair of general online research panels comprised of several million households were used to gather the sample. Quotas were applied to ensure an analyzable number of Spanish- and English-dominant Hispanic highway motorists. Both panel providers and quotas were matched to ensure comparability to the baseline study in February 2016.

All respondents contacted for the first wave were excluded from the interim and will be excluded from the post-wave next year (whether they participated or not). To maximize comparability, a nearly identical questionnaire is used for all waves.

### *AREAS OF QUESTIONING*

A copy of the questionnaire is appended to this report. Topics included:

- Frequency of driving on California highways
- Number of miles driven weekly on California highways
- Aided recall of advertising and media messages about clean highways and clean waterways
- Unaided recall of advertising elements and playback of messages about clean highways and clean waterways
- Source of such advertising or new media
- Aided recall of tagline or theme line used in advertising
- Ad message communications recall
- (Added for interim wave:) Billboard and online preroll ad recall, impact (using actual creatives featured in the campaign)
- Connection between highway pollution and quality of water
- Influence of this connection on vehicle maintenance and littering
- Behaviors engaged in, both desirable or undesirable
- Perceived threat to area of various environmental issues including polluted waterways
- Perceived causes of water pollution
- Familiarity and consideration for claims of various environmental organizations
- Demographics

## DEMOGRAPHICS OF SAMPLE

A detailed description of the sample for Wave 2 is found on the next page. Similar to Wave 1, thirty-five percent (35%) of respondents are 18-29 years old, 38% are 30-39 years old, and 28% are 40-49 years old. Just over half (53%) are male, just under half (47%) are female. Income and geography are also comparable between the two waves. The average annual household income of those interviewed for Wave 1 is \$62,100 (median) / \$69,800 (mean). All respondents reside in one of six major California markets and these markets are represented in the sample proportional to their population.

Similar to Wave 1, almost four in ten (37%) report their ethnicity as White or Caucasian, 38% Latino or Hispanic, 12% Asian American, 8% African-American or Black, 1% Native American, and 3% other. Hispanics were equally divided among those who are English- and Spanish-dominant, and this reflects their media usage. Just over half the sample (60%) own their home.

## STATISTICAL ACCURACY

The sample size of 313 yields results that are accurate to within  $\pm 5.6\%$  at the 95% confidence level. The difference between pre- and mid-wave measures is generally statistically significant within  $\pm 6.0\%$  to  $8.0\%$  at the 95% confidence level.

In the tables that follow, meaningful differences that are statistically different at the 95% level are boxed:



Statistically greater with 95% confidence.



Statistically lower with 95% confidence.

DESCRIPTION OF SAMPLE

**AGE AND GENDER**

	Total		Male		Female	
	Wave 2	Wave 1	Wave 2	Wave 1	Wave 2	Wave 1
	%	%	%	%	%	%
18-29	35	37	37	39	32	36
18-24 years old	16	17	16	16	14	18
25-29 years old	19	20	21	23	18	18
30-39 years old	38	39	37	41	37	36
40-49 years old	28	24	27	20	31	28
N =	(313)	(303)	(166)	(158)	(147)	(145)

**HOUSEHOLD INCOME**

	Wave 2	Wave 1
	Total	Total
	%	%
Less than \$20,000 (\$15K)	11	9
\$20,000 but less than \$35,000	15	14
\$35,000 but less than \$50,000	14	17
\$50,000 but less than \$75,000	20	22
\$75,000 but less than \$100,000	19	17
\$100,000 but less than \$150,000	14	11
More than \$150,000 (\$175K)	6	8
Prefer not to say	1	2
Mean	\$70K	\$70K
Median	\$62K	\$60K
N =	(313)	(303)

**ETHNICITY**

	Wave 2	Wave 1
	Total	Total
	%	%
Non-Hispanic	62	62
White or Caucasian	37	39
Asian American	12	11
African-American or Black	8	8
Native American	1	1
Other	3	3
Latino or Hispanic	38	38
N =	(313)	(303)

### USE OF SPANISH LANGUAGE AND MEDIA

	Wave 2 Total	Wave 1 Total	Hispanic	English Dominant Hispanic	Spanish Dominant Hispanic
	%	%	%	%	%
I watch Spanish language television	77	85	77	53	100
I listen to Spanish language radio	70	76	70	39	98
I read Spanish language magazines	54	64	54	21	84
I access Spanish language websites	45	53	45	23	66
I read Spanish language newspapers	41	47	41	14	66
None	21	13	21	44	0
N =	(119)	(116)	(119)	(57)	(62)

### METRO AREA VS. ACTUAL POPULATION ESTIMATE

	Wave 2 Sample	Wave 1 Sample	Per California County Estimates 2015 <sup>1</sup>
	%	%	%
Southern California	72	77	80
Los Angeles	41	44	39
San Diego	11	11	12
Inland Empire (San Bernardino/ Riverside)	11	14	17
Orange County	10	8	12
Northern California	28	23	20
San Fran/Oakland/San Jose Bay Area	20	15	15
Sacramento	9	8	6
N =	(313)	(303)	(26.2mm) <sup>2</sup>

### TYPE OF RESIDENCE

	Wave 2 Total	Wave 1 Total
	%	%
Homeowner	60	57
A single family home that you own	53	54
A townhome or condominium that you own	7	3
A single family home that you rent	19	20
An apartment	17	16
A townhome or condominium that you rent	4	8
N =	(313)	(303)

<sup>1</sup> California Dept. of Finance, Demographics Unit, estimates as of July 2015.

<sup>2</sup> In these metro areas only. Population outside these areas totals another 12.5 mm.

## HIGHLIGHTS

- In February 2016, almost half (44%) of California motorists said they had seen or heard advertising about clean highways and clean waterways in the past six months. This number has not increased and is currently at 40%.
- The two primary sources of such advertising, billboards and television, have decreased, from 34%/24% to 24%/18%, respectively. In May 2017, motorists were more likely to rely on radio (up from 2% to 9%) as a primary source. Considering all sources, billboards and TV remain most common (53% and 45%, respectively), but a variety of other sources contribute: Internet/online (44%), radio (40%), bus advertising (36%), social media (34%), posters in shopping malls (31%), magazines (25%), traffic reports (25%), newspapers (23%), and school (21%). The “all-source” figures are consistent with those seen in the benchmark wave.
- No more motorists recall the primary tagline or theme of the campaign on an aided basis. “Protect Every Drop” declined significantly (from 18% to 12%), while “Clean Water Starts with Clean Highways” remained at a similar level (15% in 2017 vs. 16% in 2016), as did “Love Our Water” (11% vs. 14%), and “Love Every Drop” (11% vs. 12%). As in the pre-wave, one in five (19%) recall “Save Our Water”, one in six (18%) “Don’t Trash Our Highways”.
- When asked directly about “Protect Every Drop”, the proportion has not increased with 48% recalling advertising with this message vs. 53% prior to the campaign. For “Clean Water Starts with Clean Highways”, 42% say they recall that message, similar to the pre-wave (43%). Between the two primary messages in the campaign, two-thirds of California motorists (61%) say they recall at least one of them, similar to 65% in February 2016.
- Despite these sobering results, the actual ads used in the campaign are recalled and recognized, suggesting that other factors are at play. When shown a billboard from the campaign, 45% say they had seen it before. When shown an online pre-roll spot, 37% recognize it. Typically, those who recognize the billboard are the same motorists who recognize the video spot, suggesting that recall of the source of awareness maybe unclear. Regardless, 90% of those who recall these spots report that the ad(s) influenced how they maintain their vehicle or drive on highways or roadways. Two-thirds of these motorists say the ads persuade them to make absolutely certain there are no leaking fluids, more than half (58%) never to litter on the highway, 52% to never dispose of automotive fluids in the trash or on the ground, 51% to make sure no trash accidentally falls out of their vehicle, and 44% to always properly inflate tires.
- This research indicates that the recent rains and reprieve from the draught-like conditions of 2015-16 has led to substantially relaxed attitudes toward water quality. The proportion of Californians who consider inadequate water supply a very serious threat fell from 70% to 58%. The proportion who believe this is the most critical or pressing environmental issue in their area dropped from 27% in February 2016 to 11% in May 2017. On many measures throughout this mid-term wave, the more serious an issue the water supply is considered, the more likely the campaign and its messages are to be recalled, believed, and acted upon. Thus, the perception of greater water quantity has worsened the public’s attention to water quality, setting the campaign back at a disadvantage. For example, recall of the campaign is much higher (49% vs. 27%) among those who consider inadequate water supply a very serious threat, recall of a plethora of taglines and messages in the campaign is about twice as high among those who consider inadequate water supply a very serious threat, and engagement in desired behaviors is often substantially higher among this group as well. The campaign’s impact has become obscured by the declining number of California motorists who attune to water supply as an issue.

*(continued...)*



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- The following findings describe Californian's adherence to desired behaviors surrounding the campaign. In considering these measures, it is important to note that on almost all them, the proportion of motorists engaging in the desired behavior is substantially higher among those who recall the campaign. This reinforces the notion that a factor outside the campaign accounts for the erosion among the public.
- Overwhelmingly (84%), Californians continue to believe there is a connection between highway pollution and the quality of water. Virtually all of these motorists (95%) continue to say that knowing this encourages them to maintain their vehicle properly and not litter or cause pollution on highways. The primary action continues to be not littering (41% vs. 39% pre-campaign), followed distantly by making sure there are no leaking fluids (12% vs. 14%).
- Behavior offers a much lower standard as many Californians admit they do not follow through. This number has not improved and if anything it has eroded slightly. Overall, 53% say they never litter on highways at all, down directionally from 56% in February 2016. Likewise, only 43% make absolutely sure they do not have leaking fluids (down significantly from 51%), 43% never dispose automotive fluids in the trash or ground (vs. 48%), 42% make sure no trash accidentally falls out of their vehicle (vs. 48%), and only 29% make absolutely sure their tires are properly inflated (down from 35%). Other desirable actions are even less regularly done: wiping down tires to remove particles (13%, down from 18%), and going to the car wash without hesitation or delay (22% vs. 21%).
- Nearly three in four (73%) do not regularly clean their brake dust (vs. 70% in 2016). The number may be even higher, as this may reflect car washing or tires rather than wiping with a cloth between washes).
- Taking their vehicle to a car wash is less common: only one-third (30%) do not hesitate to do that (vs. 34% in 2016). About as many (33%) wait a while before doing this, and another third (38%) wash their vehicle (26%) at home or wait until it rains (12%).
- Those who discover leaking fluids are delaying action more than before: 35% report waiting (vs. 20% in 2016), whether a few days (23% vs. 15%) or weeks (3%, same as 2016), or topping off and not worrying about it (9% vs. 3%).
- Directional gains are seen in some areas: While an alarming number of California motorists report that in the last six months, they left things (like old furniture, appliances, green waste, or leaves) "on the side of the highway", this is lower (17% vs. 19%). Similarly, 4% admit to sometimes not picking up after their dog poops on the side of the highway, down from 6% in February 2016. A similar proportion (7% vs. 6%) sometimes haul things without making sure they are completely secured to the vehicle. And the same proportion (6% each wave) say they sometimes litter on or don't care about littering on the highway.
- Polluted waterways or bodies of water continue to rank in the middle of a host of environmental issues, ahead of hazardous waste, but behind several other concerns like water supply, global warming, air pollution, and traffic congestion, Polluted water is about on par with population growth.
- Half (64%) say the issue is very serious and another 30% call it "somewhat serious" with "some consequences". The remaining 6% say it is not that serious or not serious at all. This attitude has not changed since February 2016, when these figures were 62%, 31%, and 7%, respectively.
- While motorists are more likely to blame industrial and manufacturing plants for water pollution than anything else (27%), some acknowledge that the main culprit is sewer/water treatment plants (15%), litter in the streets/roadways (13%), or storm drains (13%). Motor oil (10%) and pesticides/fertilizers (6%) also are point to on occasion. 4% point to not picking up dog or animal waste. Only 1% point to particles from vehicles or debris from vehicles. Only 1% point to improper disposal of paints.

## WAVE 2 FINDINGS

### DRIVING FREQUENCY & USAGE

1. Freeway/highway driving frequency and use remained steady. California drivers estimate they use these roadways an average of about 22 times a month, or nearly once a day. Of those who have driven on California freeways/highways in the past month, about one in ten has used them more than 50 times.
  - Male drivers age 40-49 report heavier usage of highways than other age/gender groups.

#### FREQUENCY OF DRIVING ON CALIFORNIA FREEWAY OR HIGHWAY IN PAST MONTH

	Wave 2	Wave 1	Male 18-29	Male 30-39	Male 40-49	Female 18-29	Female 30-39	Female 40-49
	%	%	%	%	%	%	%	%
1 to 4	18	14	23	13	9	23	20	20
5 to 10	22	20	26	18	16	23	24	22
11 to 15	4	10	3	10	5	4	0	2
16 to 20	14	13	21	13	14	9	15	13
21 to 30	28	31	13	38	36	21	26	33
31 to 50	6	5	12	2	7	9	4	2
Over 50	8	9	2	7	14	11	13	7
Mean (times)	22	23	17	22	28	23	22	21
Median (times)	20	20	12	20	25	15	20	20
N =	(313)	(303)	(61)	(61)	(44)	(47)	(55)	(45)

Q *In the past 30 days about how many times have you personally driven a car on a freeway, California State highway, or interstate highway?*

- California freeway/highway drivers estimate they drive on these roadways an average (median) of 200 miles a month. However, some drive 1,000 or more miles in a month, thus raising the perceived mean monthly usage to nearly 470 miles. Male motorists 40-49 years old report significantly more miles of driving,

#### NUMBER OF MILES DRIVEN ON CALIFORNIA FREEWAYS OR HIGHWAYS IN PAST MONTH

	Wave 2	Wave 1	Male 18-29	Male 30-39	Male 40-49	Female 18-29	Female 30-39	Female 40-49
	%	%	%	%	%	%	%	%
Mean	466	446	342	583	758	444	371	327
Median	200	200	100	200	500	100	200	200
1,001 or more	10	10	5	13	18	13	7	4
N =	(313)	(303)	(61)	(61)	(44)	(47)	(55)	(45)

Q *And during the last 30 days, about how many total miles do you think you've driven on freeways, State highways, or interstates?*

## CHANGES IN ATTITUDE TOWARDS WATER-RELATED ISSUES

2. As speculated last year, the benchmark wave of 303 similarly profiled California motorists surveyed in February 2016 appeared to set the bar relatively high. While the results of the mid-term wave show some drop-off, the decline appears largely unrelated to the campaign, as explained in the points that follow.
3. This research indicates that the recent rains and reprieve from the draught-like conditions of 2015-16 has led to substantially relaxed attitudes toward water quality. The proportion of Californians who consider inadequate water supply a very serious threat fell from 70% to 59%. The proportion who believe this is the most critical or pressing environmental issue in their area dropped from 27% in February 2016 to 11% in May 2017. On many measures throughout this mid-term wave, the more serious an issue the water supply is considered, the more likely the campaign and its messages are to be recalled, believed, and acted upon. The relationship between perception of water quantity and water quality is explained in depth later in this report. See findings on p. 14, 18-23 and "Perception of Environmental Issues" section on pp. 38-40 for details.
4. Californians view several environmental issues as threatening, and polluted water bodies in their area is one of them. While more important or pressing than some environmental issues, the presence of polluted water bodies in the area is seen as not quite as important or pressing an issue as several others.
  - Polluted waterways or bodies of water rank below average relative to a host of environmental issues, ahead of hazardous waste, but behind several other concerns like global warming, traffic congestion, and air pollution. Polluted water is about on par with population growth and inadequate water supply, which declined drastically (back in February 2016 it was the most critical or pressing environmental issue).
  - On average, two-thirds (64%) say the issue of polluting water bodies is very serious and another 30% call it "somewhat serious" with "some consequences". The remaining 6% say it is not that serious or not serious at all. This attitude has not changed since February 2016, when these figures averaged 62%, 31%, and 7%, respectively.
  - In addition to questions on various environmental issues, motorists were asked particularly about the seriousness of water bodies' pollution problem in their area. Responses have not changed significantly since pre-wave: 54% (vs. 50%) consider this problem to be very serious, 38% (vs. 43%) – "somewhat serious" with "some consequences", and the remaining 8% (vs. 7% in February 2016) - not that serious or not serious at all.

**PERCEIVED THREAT OF VARIOUS ENVIRONMENTAL ISSUES**

	Very Serious Threat		Somewhat Serious Threat		Not That Much Of A Threat	
	Wave 2	Wave 1	Wave 2	Wave 1	Wave 2	Wave 1
	%	%	%	%	%	%
Air pollution	66	64	29	30	5	6
Polluted ocean or bay	66	63	28	30	7	7
Increased traffic congestion	64	61	31	35	5	4
Polluted, lakes, rivers and creeks	63	62	31	32	7	6
Global warming	62	61	27	28	11	10
Inadequate water supply	59	70	32	24	10	6
Population growth	57	49	34	35	9	16
Household hazardous waste	48	47	43	42	9	11
None of these	8	7	22	19	69	64
N = (313) for Wave 2, (303) for Wave 1						

Q How serious a problem do you think pollution is to water bodies in and around (\_\_\_\_\_)?

**PERCEIVED IMPORTANCE OF ENVIRONMENTAL ISSUES**

	Most Critical or Pressing		Top 3 Most Critical or Pressing		Least Critical or Pressing	
	Wave 2	Wave 1	Wave 2	Wave 1	Wave 2	Wave 1
	%	%	%	%	%	%
Global warming	20	21	43	42	18	19
Increased traffic congestion	17	12	39	38	14	14
Air pollution	16	12	51	47	5	6
Polluted ocean or bay	13	8	38	35	6	9
Population growth	12	10	37	29	15	20
Inadequate water supply	11	27	36	54	12	4
Polluted, lakes, rivers and creeks	8	6	34	34	10	9
Household hazardous waste	4	4	22	21	20	22
N =	(313)	(303)	(313)	(303)	(313)	(303)

Q Now, please rank these issues in order of how important they are to the people of the (\_\_\_\_\_) area today.

Highlights denote themes specific to this campaign.

*ADVERTISING RECALL*

5. In February 2016, almost half (44%) of California motorists said they had seen or heard advertising about clean highways and clean waterways in the past six months. This number has not increased and is currently at 40%. This is somewhat lower than other unrelated public messages (for example, importance of recycling, maintaining a diet that is high in fiber, eating five servings of fruits and vegetables).
  - Higher income motorists claim a much higher level of awareness of advertising about clean highways and clean waterways than do those with lower income.
  - Inadequate water supply stopped being considered to be the most serious issue. Along with this, recall of messages about water conservation also decreased significantly – from 69% to 57%.

**RECALL OF ADVERTISING IN LAST 6 MONTHS -- BY INCOME, ETHNICITY**

	Wave2	Wave1	Higher (\$75K & Over)	Lower (under \$75k)	Non-Hispanic	Hispanic	English Dominant Hispanic	Spanish Dominant Hispanic
	%	%	%	%	%	%	%	%
Advertising about how it is important to conserve our water supply	57	69	59	55	57	57	58	57
Advertising about how it is important to recycle	53	60	55	52	55	50	51	50
Advertising about the benefits of eating five servings of fruits and vegetables everyday	48	51	55	44	43	56	47	63
Advertising about the benefits of eating a diet that is high in fiber	43	51	54	37	41	47	40	53
Advertising about clean highways and clean waterways	40	44	48	35	39	40	46	36
None of these	21	18	18	23	22	19	18	21
N =	(313)	(303)	(123)	(187)	(194)	(119)	(57)	(62)

6. The perception of greater water quantity has worsened the public's attention to water quality, setting the campaign back at a disadvantage.
- Recall of the campaign is much higher (49% vs. 27%) among those who consider inadequate water supply a very serious threat to the area.
  - Not surprisingly, those who consider inadequate water supply to be a very serious issue or in top 3 critical or most pressing ones are also more likely to recall advertising about how it is important to conserve our water supply.

**RECALL OF ADVERTISING IN LAST 6 MONTHS –  
BY ATTITUDE TOWARDS AN INADEQAUTE WATER SUPPLY PROBLEM**

	<b>Wave2</b>	<b>Wave1</b>	<b>Very Serious Threat To The Area Today</b>	<b>Somewhat/ not Much Of A Threat To The Area</b>	<b>Top 3 Critical Or Most Pressing</b>	<b>Not Top 3 Critical Or Most Pressing</b>
	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>
Advertising about how it is important to conserve our water supply	57	69	63	49	66	52
Advertising about how it is important to recycle	53	60	54	53	60	50
Advertising about the benefits of eating five servings of fruits and vegetables everyday	48	51	54	40	54	45
Advertising about the benefits of eating a diet that is high in fiber	43	51	48	36	42	44
Advertising about clean highways and clean waterways	40	44	49	27	42	38
None of these	21	18	16	29	14	25
N =	(313)	(303)	(183)	(130)	(111)	(202)

Q In the past six months, do you recall seeing or hearing any.....

7. The two primary sources of such advertising, billboards and television, have decreased, from 34%/24% to 24%/18%, respectively. In May 2017, motorists were more likely to rely on radio (up from 2% to 9%) as a primary source. Considering all sources, billboards and TV remain most common (53% and 45%, respectively), but a variety of other sources contribute: Internet/online (44%), radio (40%), bus advertising (36%), social media (34%), posters in shopping malls (31%), magazines (25%), traffic reports (25%), newspapers (23%), and school (21%). The "all-source" figures are consistent with those seen in the benchmark wave.

**SOURCE OF ADVERTISING AWARENESS ABOUT CLEAN HIGHWAYS AND CLEAN WATERWAYS  
(Among Those Who Recall Advertising)**

	Primary Place Saw or Heard Advertising		Total Places Saw or Heard Advertising	
	Wave 2	Wave 1	Wave 2	Wave 1
	%	%	%	%
Billboard	24	34	53	59
Television	18	24	45	52
Internet/Online	10	10	44	44
Radio	9	2	40	37
Bus Advertising	8	7	36	38
Your Facebook, Instagram, or Twitter feed	6	7	34	31
Poster in shopping mall	5	5	31	32
School	4	1	21	16
Magazine	3	3	25	28
Traffic Reports / Traffic Reporters	3	1	25	30
Newspaper	2	2	23	29
Other	2	1	3	2
Don't Remember/Don't Know/No Answer	7	3	6	2
N =	(169)	(169)	(169)	(169)

Q Where did you see or hear this advertising?

*MESSAGE RECALL AND PLAYBACK OF ADVERTISING*

8. The primary aspect of such advertising that California motorists recall on an unaided basis is a general “protect the environment” theme, mentioned by 43% of those that recall advertising (the number has not increased much since Wave 1 – 40%). However, half of this playback is related to general messages about the drought (12%) or recycling (8%). Littering/trash-related messages account for the bulk of the specifics recalled. Other specific desirable behaviors are rarely mentioned. Other than litter, the specific causes and pathways to the state’s waters is rarely mentioned.

**RECALL ABOUT ADVERTISING (UNAIDED)  
(Among Those Who Recall Advertising)**

	Wave 2	Wave 1
	%	%
PROTECT ENVIRONMENT (NET)	43	40
CLEAN ENVIRONMENT (SUBNET)	23	20
Keep the roads/highways clean/don't litter on roads	9	6
Keep waterways clean/don't litter in the waterways	5	4
Keep clean/keep environment clean (general)	4	4
Dumping things in the sewers/street drains ends up in our waterways	1	2
Litter thrown on the roads ends up in our waterways	1	3
That we are in a drought/we need to conserve water	12	16
Recycling/urging people to recycle	8	4
Protect/take care of/value our environment/be green (general)	2	2
MISCELLANEOUS UNRELATED ADS (NET)	11	9
Healthy living/eat/drink healthy (fruits/vegetables/drink water)	4	3
Misc. one-mention product/marketing/sales-related signs mentions (for cars, cable, etc.)	4	5
Misc. one-mention non-related topics (was about voting, smoking, etc.)	4	1
SOURCE (NET)	7	5
Saw it on a billboard	3	2
ROAD MAINTENANCE/CONSTRUCTION (NET)	2	5
Was about road maintenance/improvements	1	2
MISCELLANEOUS		
It was good/liked it	7	5
Misc. one-mention general graphics mentions (colorful, remember the drawings, etc.)	4	4
Other misc. one-mention reaction mentions (was funny, annoying, etc.)	4	4
Misc. one-mention advertising details mentions (it was detailed, the characters involved, etc.)	3	4
Don't Remember/Nothing/No Answer	24	23
N =	(169)	(169)

Q *What do you remember about the advertising? Please be as specific as possible.*



9. When asked to playback the main message of advertising, the general theme of protecting the environment comprised the bulk of recall, with over half (52%) of the mentions. The drought still accounts for much of this recall with 16% of mentions, and a relatively ambiguous “keep environment clean” or “keep highways clean” message ranking second.

As in Wave 1, specific desirable behaviors to engage or undesirable behaviors to avoid are rarely mentioned in Wave 2.

**MAIN MESSAGE PLAYBACK (UNAIDED)  
(Among Those Who Recall Advertising)**

	<b>Wave 2</b>	<b>Wave 1</b>
	%	%
PROTECT ENVIRONMENT (NET)	52	57
CLEAN ENVIRONMENT (SUBNET)	26	28
Keep clean/keep environment clean (general)	9	6
Keep the roads/highways clean/don't litter on roads	8	14
Don't litter	4	6
Keep waterways clean/don't litter in the waterways	4	4
That we are in a drought/we need to conserve water	16	22
Recycling/urging people to recycle	8	5
Protect/take care of/value our environment/be green (general)	6	6
MISCELLANEOUS UNRELATED ADS (NET)	14	10
Healthy living/eat/drink healthy (fruits/vegetables/drink water)	5	4
Misc. one-mention non-related topics (was about voting, smoking, etc.)	5	2
Misc. one-mention product/marketing/sales-related signs mentions (for cars, cable, etc.)	2	5
ROAD MAINTENANCE/CONSTRUCTION (NET)	2	2
MISCELLANEOUS		
It was good/liked it	6	5
Don't Remember/Nothing/No Answer	21	19
N =	(169)	(169)

Q *What was the one main message that the advertising told you? Please be as specific as possible about what the advertising was trying to tell you.*

10. When asked to identify messages in the advertising from a list, the problems of littering and throwing cigarette butts on the highway continue to be frequently cited (28% and 21%, respectively). A few more specific messages are also mentioned: about one in five or six motorists say they recall having seen or heard messages about how illegal dumping, leaky fluids, the use of pesticides/herbicides/fertilizers, or debris from motor vehicles damages water bodies. Other messages such as the harm of particle accumulation, heavy metals, and underinflated tires, are recalled by one-tenth of motorists or less. Recall of messages about pesticides, herbicides and fertilizers fell from February 2016 (24% vs. 15%).

- The more serious an issue the water supply is considered, the more likely the messages in the campaign are to be recalled. For example, recall of having seen or heard messages about how littering on the highway harms water bodies, is twice as high among those who consider inadequate water supply a very serious threat, and for messages about illegal dumping – almost three times higher. In addition, those who do not believe there is a very serious water quantity problem are far less likely to recall having seen or heard advertising at all.

**RECALL OF MESSAGES IN THE ADVERTISING (AIDED) – BY ATTITUDE TOWARDS AN INADEQUATE WATER SUPPLY PROBLEM**

	Wave 2	Wave 1	Very Serious Threat To The Area Today	Somewhat/not Much Of A Threat To The Area	Top 3 Critical Or Most Pressing	Not Top 3 Critical Or Most Pressing
	%	%	%	%	%	%
Littering on the highway pollutes the water	28	31	36	17	33	25
Illegal dumping pollutes the water	23	28	31	12	24	22
Flicking cigarette butts on the ground pollutes the water	21	24	30	9	27	18
Leaky motor vehicle fluids pollute the water	16	19	20	11	22	13
Using chemical pesticides, herbicides, and fertilizers pollutes the water	15	24	19	11	17	14
Debris from motor vehicles pollutes the water	15	19	18	11	14	15
Particles that accumulate on motor vehicles pollute the water	10	14	11	9	6	12
Heavy metals that come from tires and brakes pollute the water	10	14	13	5	12	8
Underinflated tires cause extra wear that pollute the water	8	12	11	3	7	8
Other	1	1	1	0	1	1
Can't remember / Not sure / Don't know	7	6	7	8	5	8
Didn't See/Hear Advertising	46	44	37	59	47	46
N =	(313)	(303)	(183)	(130)	(111)	(202)

Q Please read the entire list carefully, then check all those that you remember the advertising trying to tell you.

11. The proportion of motorists who recall the primary tagline or theme of the campaign on an aided basis has not increased (30% vs. 33%). "Protect Every Drop" declined significantly (from 18% to 12%), while "Clean Water Starts with Clean Highways" remained at a similar level (15% in 2017 vs. 16% in 2016), as did Love Every Drop (11% vs. 12%) and "Love Our Water" (11% vs. 14%). As in the pre-wave, one in five (19%) recall "Save Our Water", one in six (18%) "Don't Trash Our Highways".

- Higher income motorists are more likely to recall the taglines or themes that will be used in the campaign. Spanish-dominant Hispanics are also more likely to say they recognize some of these taglines or themes.
- Most of the taglines show higher recall among those who pay more attention to a problem of water quantity and consider it to be a serious threat.

**SPECIFIC TAGLINE OR THEME LINE IN ADVERTISING (AIDED) – BY INCOME, ETHNICITY**

	Wave 2	Wave 1	Higher (\$75k & Over)	Lower (under \$75k)	Non-Hispanic	Hispanic	English Dominant Hispanic	Spanish Dominant Hispanic
	%	%	%	%	%	%	%	%
Water-Related (Net)	36	41	43	33	37	35	33	37
Primary Campaign Messages (Subnet)	30	33	37	26	31	28	23	32
Clean Water Starts with Clean Highways	15	16	20	12	17	13	18	10
Protect Every Drop	12	18	11	12	11	12	11	13
Love Every Drop	11	12	15	8	9	13	5	19
Love Our Water	11	14	12	10	13	7	0	13
Save Our Water	19	22	20	19	20	19	21	16
Don't Trash Our Highways	18	17	20	16	20	14	19	10
Help Keep Our Air Clean California	13	15	20	9	16	10	7	13
Cleaner Running Vehicles Mean Cleaner Air	12	11	14	11	12	12	14	10
Other	0	0	0	1	1	0	0	0
Can't remember / Not sure / Don't know	8	8	6	10	7	11	14	8
Didn't See/Hear Advertising	46	44	40	50	47	45	40	48
N =	(313)	(303)	(123)	(187)	(194)	(119)	(57)	(62)

**SPECIFIC TAGLINE OR THEME LINE IN ADVERTISING (AIDED) – BY ATTITUDE TOWARDS AN INADEQUATE WATER SUPPLY PROBLEM**

	Wave 2	Very Serious Threat To The Area Today	Somewhat/not Much Of A Threat To The Area	Top 3 Critical Or Most Pressing	Not Top 3 Critical Or Most Pressing
	%	%	%	%	%
Water-Related (Net)	36	44	26	34	38
Primary Campaign Messages (Subnet)	30	35	22	28	31
Clean Water Starts With Clean Highways	15	17	13	14	16
Protect Every Drop	12	15	7	10	12
Love Every Drop	11	12	9	6	13
Love Our Water	11	13	8	9	11
Save Our Water	19	25	12	22	18
Don't Trash Our Highways	18	22	11	20	16
Help Keep Our Air Clean California	13	19	6	13	14
Cleaner Running Vehicles Mean Cleaner Air	12	15	8	12	12
Other	0	1	0	0	1
Can't remember / Not sure / Don't know	8	8	9	7	9
Didn't See/Hear Advertising	46	37	59	47	46
N =	(313)	(183)	(130)	(111)	(202)

Q What was the specific tag line or theme line used in the advertising? Check all of the messages it was trying to tell you.

12. When asked directly about “Protect Every Drop”, the proportion has not increased with 48% recalling advertising with this message vs. 53% prior to the campaign. “For Clean Water Starts with Clean Highways”, 42% say they recall that message, similar to the pre-wave (43%). Between the two primary messages in the campaign, two-thirds of California motorists (61%) say they recall at least one of them, similar to 65% in February 2016.

- Male and higher income motorists are more also likely to say they recognize these taglines.
- The same tendency is observed among those who consider inadequate water supply to be a very serious problem.

**RECALL OF SPECIFIC MESSAGES IN THE CAMPAIGN – BY INCOME, ETHNICITY**

	Wave 2	Wave 1	Higher (\$75k & Over)	Lower (under \$75k)	Male	Female
	%	%	%	%	%	%
Recall Specific Message	61	65	67	58	71	51
Protect Every Drop	48	53	51	47	57	39
Clean Water Starts with Clean Highways	42	43	50	37	51	33
N =	(313)	(303)	(123)	(187)	(166)	(147)

**RECALL OF SPECIFIC MESSAGES IN THE CAMPAIGN – BY ATTITUDE TOWARDS AN INADEQAUTE WATER SUPPLY PROBLEM**

	Wave 2	Very Serious Threat To The Area Today	Somewhat/not Much Of A Threat To The Area
	%	%	%
Recall Specific Message	61	66	55
Protect Every Drop	48	52	43
Clean Water Starts with Clean Highways	42	48	35
N =	(313)	(183)	(130)

Q Do you recall seeing or hearing advertising with the message “Clean Water Starts with Clean Highways”?

## *IMPACT OF ADVERTISING*

The following findings describe Californian's adherence to desired behaviors surrounding the campaign. In considering these measures, it is important to note that on almost all them, the proportion of motorists engaging in the desired behavior is substantially higher among those who recall the campaign. This reinforces the notion that a factor outside the campaign accounts for the erosion among the public.

13. Overwhelmingly (84%), Californians continue to believe there is a connection between highway pollution and the quality of water. Virtually all of these motorists (95%) continue to say that knowing this encourages them to maintain their vehicle properly and not litter or cause pollution on highways.

- Higher income motorists are more likely to believe there is a connection. However, they are no more likely to say that this knowledge affects their behavior.
- Those who consider inadequate water supply to be a very serious problem, are more likely to believe there is a connection and to say that this knowledge affects their behavior.

**UNDERSTANDING AND IMPACT OF CONNECTION BETWEEN HIGHWAY POLLUTION AND WATER QUALITY –  
BY INCOME, ETHNICITY**

	Wave 2	Wave 1	Higher (\$75k & Over)	Lower (under \$75k)	Non-Hispanic	Hispanic	English Dominant Hispanic	Spanish Dominant Hispanic
	%	%	%	%	%	%	%	%
Believe there is a connection between highway pollution (including litter on highways) and the quality of water in California creeks, lakes, rivers and the ocean	84	84	91	81	85	84	90	79
Knowing this encourages motorist to maintain vehicle properly and not litter or cause pollution on the highways	80	81	85	77	80	80	84	76
Neither of these	16	17	9	19	16	16	11	21
N =	(313)	(303)	(123)	(187)	(194)	(119)	(57)	(62)

**UNDERSTANDING AND IMPACT OF CONNECTION BETWEEN HIGHWAY POLLUTION AND WATER QUALITY –  
BY ATTITUDE TOWARDS AN INADEQUATE WATER SUPPLY PROBLEM**

	Wave 2	Very Serious Threat To The Area Today	Somewhat/not Much Of A Threat To The Area
	%	%	%
Believe there is a connection between highway pollution (including litter on highways) and the quality of water in California creeks, lakes, rivers and the ocean	84	90	76
Knowing this encourages motorist to maintain vehicle properly and not litter or cause pollution on the highways	80	86	72
Neither of these	16	10	24
N =	(313)	(183)	(130)

- Q *Do you believe there is a connection between highway pollution (including litter on highways) and the quality of water in California creeks, lakes, rivers and the ocean?*
- Q *Knowing that there is a connection between highway pollution (including litter on highways) and the quality of water in California creeks, lakes, rivers and the ocean, does this encourage you to maintain your vehicle properly and not litter or cause pollution on the highways you drive on?*

14. The primary action continues to be not littering (41% vs. 39% pre-campaign), followed distantly by making sure there are no leaking fluids (12% vs. 14% pre-campaign). Many other desirable behavior are rarely engaged in.

- Female motorists are less likely to litter. While neither gender tends to take care of securing things when hauling them or car tires' inflation and cleanness, males are more likely to do this.

**PRIMARY ACTION AS RESULT OF ADVERTISING OR MAKING THE CONNECTION – BY GENDER**

	Wave 2	Wave 1	Male	Female
	%	%	%	%
I never litter on the highway, never at all	28	30	18	40
I make sure that no trash accidentally falls out of my vehicle	13	9	12	13
I make absolutely sure that my motor vehicle is not leaking any fluids	12	14	13	12
I never dispose of any automotive fluids in the trash or on the ground	9	8	8	10
If I am hauling anything, I always make absolutely sure that it is completely secured to the vehicle	5	4	8	3
I make absolutely sure that my tires are always properly inflated	4	5	6	1
If my vehicle gets dirty, I promptly wash it at home	3	4	4	2
If my vehicle gets dirty, I do not hesitate to take it to a car wash	3	4	3	3
I wipe down my tires to remove particles that accumulate on them	2	2	4	0
Other	0	0	1	0
Don't Know	1	1	1	1
Does not encourage vehicle maintenance or litter/pollution on highways	5	3	5	3
Do not believe there's a connection	16	17	18	14
N =	(313)	(303)	(166)	(147)

Q How has it influenced how you maintain your vehicle or drive on highways and roadways?



15. Behavior offers a much lower standard as many Californians admit they do not follow through. This number has not improved and if anything it has eroded slightly. Overall, 53% say they never litter on highways at all, down directionally from 56% in February 2016, 49% make sure no trash accidentally falls out of their vehicle (vs. 48%). Likewise, only 43% make absolutely sure they do not have leaking fluids (down significantly from 51%), 43% never dispose automotive fluids in the trash or ground (vs. 48%), and only 29% make absolutely sure their tires are properly inflated (down from 35%). Other desirable actions are even less regularly done: wiping down tires to remove particles (13%, down from 18%), and going to the car wash without hesitation or delay (21% vs. 22%) or promptly washing it at home (17%, down significantly from 23%).

- Those who consider inadequate water supply to be a very serious problem are more likely to show positive behavior. For example, to never litter on the highway, make sure no trash accidentally falls out of their vehicle, never dispose automotive fluids in the trash or ground etc.

**ALL WAYS ADVERTISING OR MAKING THE CONNECTION INFLUENCES POSITIVELY BEHAVIOR**

	Wave 2	Wave 1
	%	%
I never litter on the highway, never at all	53	56
I make sure that no trash accidentally falls out of my vehicle	49	48
I make absolutely sure that my motor vehicle is not leaking any fluids	43	51
I never dispose of any automotive fluids in the trash or on the ground	43	48
If I am hauling anything, I always make absolutely sure that it is completely secured to the vehicle	30	32
I make absolutely sure that my tires are always properly inflated	29	35
If my vehicle gets dirty, I do not hesitate to take it to a car wash	21	22
If my vehicle gets dirty, I promptly wash it at home	17	23
I wipe down my tires to remove particles that accumulate on them	13	18
Other	1	1
Don't Know	1	1
Does not encourage vehicle maintenance or litter/pollution on highways	5	3
Do not believe there's a connection	16	17
N =	(313)	(303)

**ALL WAYS ADVERTISING OR MAKING THE CONNECTION INFLUENCES POSITIVELY BEHAVIOR –  
BY ATTITUDE TOWARDS AN INADEQUATE WATER SUPPLY PROBLEM**

	Wave 2	Very Serious Threat To The Area Today	Somewhat/not Much Of A Threat To The Area	Top 3 Critical Or Most Pressing	Not Top 3 Critical Or Most Pressing
	%	%	%	%	%
I never litter on the highway, never at all	53	60	44	60	50
I make sure that no trash accidentally falls out of my vehicle	49	56	40	53	47
I make absolutely sure that my motor vehicle is not leaking any fluids	43	47	36	44	42
I never dispose of any automotive fluids in the trash or on the ground	43	52	29	48	40
If I am hauling anything, I always make absolutely sure that it is completely secured to the vehicle	30	35	22	35	27
I make absolutely sure that my tires are always properly inflated	29	37	19	37	25
If my vehicle gets dirty, I do not hesitate to take it to a car wash	21	22	21	20	22
If my vehicle gets dirty, I promptly wash it at home	17	19	15	8	22
I wipe down my tires to remove particles that accumulate on them	13	12	13	9	14
Other	1	1	1	2	0
Don't Know	1	1	2	1	1
Does not encourage vehicle maintenance or litter/pollution on highways	5	4	5	7	3
Do not believe there's a connection	16	10	24	13	17
N =	(313)	(183)	(130)	(111)	(202)

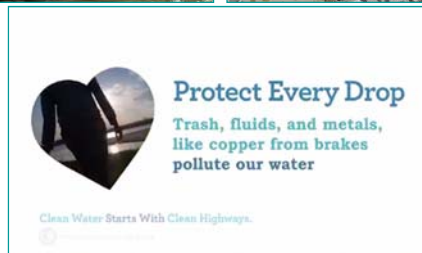
Q How has it influenced how you maintain your vehicle or drive on highways and roadways?

ACTUAL AD RECALL

Shown to Northern California:



Shown to Southern California:



16. Despite sobering results, mentioned earlier, the actual ads used in the campaign are recalled and recognized, suggesting that other factors are at play. When shown a billboard from the campaign, 45% say they had seen it before. When shown an online preroll spot, 37% recognize it. Typically, those who recognize the billboard are the same motorists who recognize the video spot, suggesting that recall of the source of awareness may be unclear.

- Males in their 30's are more likely to recall each of the ads.

**RECALL/RECOGNITION OF BILLBOARD AD (FROM EXPOSURE)**

	Wave 2	Male	Female	Male 18-29	Male 30-39	Male 40-49	Female 18-29	Female 30-39	Female 40-49
	%	%	%	%	%	%	%	%	%
Yes	45	49	41	49	59	34	49	42	31
No	55	51	59	51	41	66	51	58	69
N =	(313)	(166)	(147)	(61)	(61)	(44)	(47)	(55)	(45)

**RECALL/RECOGNITION OF ONLINE PREROLL AD (FROM EXPOSURE)  
(Of Those Who Were Able To View Ad In Survey Player)**

	Wave 2	Male	Female	Male 18-29	Male 30-39	Male 40-49	Female 18-29	Female 30-39	Female 40-49
	%	%	%	%	%	%	%	%	%
Yes	37	44	30	39	58	29	35	29	24
No	63	57	71	61	42	71	65	71	76
N =	(276)	(147)	(129)	(57)	(55)	(35)	(40)	(51)	(38)

Q Do you recall seeing this before?

*ACTUAL AD IMPACT*

17. Encouragingly, 90% of those who recall these spots report that the ad(s) influenced how they maintain their vehicle or drive on highways or roadways.

- Claimed ad impact is strong across all income, ethnic and age/gender groups.

**AD IMPACT ON MAINTAINING THE VEHICLE ON HIGHWAYS AND ROADWAYS  
(Of Those Who Recall Seeing a Billboard Ad)**

	<b>Wave 2</b>	<b>Higher (\$75K &amp; Over)</b>	<b>Lower (under \$75k)</b>	<b>Non-Hispanic</b>	<b>Hispanic</b>	<b>English Dominant Hispanic</b>	<b>Spanish Dominant Hispanic</b>
	%	%	%	%	%	%	%
Yes	90	92	88	88	93	89	97
N =	(141)	(65)	(75)	(84)	(57)	(26)	(31)

**AD IMPACT ON MAINTAINING THE VEHICLE ON HIGHWAYS AND ROADWAYS  
(Of Those Who Recall Seeing an Online Video Preroll Ad)**

	<b>Wave 2</b>	<b>Higher (\$75K &amp; Over)</b>	<b>Lower (under \$75k)</b>	<b>Non-Hispanic</b>	<b>Hispanic</b>	<b>English Dominant Hispanic</b>	<b>Spanish Dominant Hispanic</b>
	%	%	%	%	%	%	%
Yes	90	94	87	89	92	93	91
N =	(102)	(49)	(53)	(65)	(37)	(15)	(22)

Q *Has this advertising influenced how you maintain your vehicle or drive on highways and roadways?*

18. Two-thirds (63%) of Californian motorists say the ads persuade them to make absolutely certain there are no leaking fluids, more than half (58%) never to litter on the highway, 52% to never dispose of automotive fluids in the trash or on the ground, 51% to make sure no trash accidentally falls out of their vehicle, and 44% to always properly inflate tires.

- The primary ways of influence of each of these ads are persuasion to never litter on the highway, to make absolutely sure that the motor vehicle is not leaking any fluids and to never dispose of any automotive fluids in the trash or on the ground.

**AD IMPACT ON MAINTAINING THE VEHICLE ON HIGHWAYS AND ROADWAYS  
(Of Those Who Claim Each Ad Influenced Them)**

	Billboard Ad		Online Preroll Ad		Either
	Primary Way of Influence	Total Ways of Influence	Primary Way of Influence	Total Ways of Influence	Total Ways of Influence
	%	%	%	%	%
I make absolutely sure that my motor vehicle is not leaking any fluids	17	54	21	58	63
I never litter on the highway, never at all	26	56	14	41	58
I never dispose of any automotive fluids in the trash or on the ground	13	43	14	50	52
I make sure that no trash accidentally falls out of my vehicle	9	48	10	44	51
I make absolutely sure that my tires are always properly inflated	9	43	11	36	44
If I am hauling anything, I always make absolutely sure that it is completely secured to the vehicle	9	35	7	36	39
If my vehicle gets dirty, I promptly wash it at home	9	29	8	25	31
If my vehicle gets dirty, I do not hesitate to take it to a car wash	5	32	4	19	31
I wipe down my tires to remove particles that accumulate on them	4	20	11	25	26
N =	(127)	(127)	(92)	(92)	(144)

Q *How has this advertising most influenced how you maintain your vehicle or drive on highways and roadways?*

Q *How else this advertising most influenced how you maintain your vehicle or drive on highways and roadways?*

19. Awareness and beliefs about the campaign and its primary messages continues to be consistent across different metro areas statewide and different age/gender groups. As mentioned earlier, males in their 30's are more likely to recall advertising about clean highways and clean waterways and the message "Clean water starts with clean highways". They are also more likely to recall or recognize the actual billboard or pre-roll ads.

- Caution should be used here as sample sizes are small.

#### REGIONAL DIFFERENCES IN AWARENESS AND BELIEFS

	Wave 2	Wave 1	Southern California	Northern California	Los Angeles	San Diego	Inland Empire	Orange County	Bay Area	Sacramento
	%	%	%	%	%	%	%	%	%	%
Recall advertising about clean highways and clean waterways	40	44	42	33	38	52	43	50	33	34
Recall message "Clean Water Starts with Clean Highways"	42	43	45	34	48	43	43	40	38	26
Recall message "Protect Every Drop"	48	53	52	38	57	49	49	43	36	41
Believe there is a connection between highway pollution and the quality of water	84	83	84	84	84	82	88	86	87	78
Recall / Recognize Billboard or Online Preroll Ads	50	N/A	54	42	59	52	46	43	46	33
N =	(313)	(303)	(225)	(88)	(127)	(33)	(35)	(30)	(61)	(27)

#### AGE/GENDER DIFFERENCES IN AWARENESS AND BELIEFS

	Wave 2	Wave 1	Male 18-29	Male 30-39	Male 40-49	Female 18-29	Female 30-39	Female 40-49
	%	%	%	%	%	%	%	%
Recall advertising about clean highways and clean waterways	40	44	39	57	36	36	34	29
Recall message "Clean Water Starts With Clean Highways"	42	43	51	61	36	34	35	29
Recall message "Protect Every Drop"	48	53	67	57	41	49	40	26
Believe there is a connection between highway pollution and the quality of water	84	84	77	83	89	89	85	84
Recall / Recognize Billboard or Online Preroll Ads	50	N/A	56	67	39	51	47	35
N =	(313)	(303)	(61)	(61)	(44)	(47)	(55)	(45)

*SELF-REPORTED BEHAVIOR*

20. In February 2016, only half of California motorists (52%) said they had regularly checked to make certain their tires were properly inflated. This number has not increased and is currently at 48%. Perhaps more concerning is that nearly one in four California motorists (24%) report that they “go by how my vehicles feels”, are sometimes “not totally certain”, or “don’t really worry about this”.

- Women are less likely to check than are men. They (and Hispanics) are also more likely to sometimes be not totally certain about their tires’ proper inflation.

**TIRE INFLATION BEHAVIOR – BY ETHNICITY, GENDER**

	Wave 2	Wave 1	Non-Hispanic	Hispanic	English Dominant Hispanic	Spanish Dominant Hispanic	Male	Female
	%	%	%	%	%	%	%	%
I regularly check and make certain that my tires are properly inflated	48	52	49	47	46	48	56	39
Every so often, I check and make certain that my tires are properly inflated	28	30	31	22	26	18	26	30
I go by how my vehicle feels when I'm driving it, and can tell when my tires are not properly inflated or close to it	15	12	12	19	14	24	13	17
I sometimes think that my tires are properly inflated, but sometimes I am not totally certain	4	3	2	8	9	7	1	8
I really don't worry or think about this too much	5	3	6	4	5	3	4	7
N =	(313)	(303)	(194)	(119)	(57)	(62)	(166)	(147)

Q Which best describes you?

21. Nearly three in four (72%) California motorists do not regularly clean their brake dust, similar to 70% in 2016. The number may be even higher, as this may reflect car washing or tires rather than wiping with a cloth between washes. Perhaps most concerning is that one in five (20%) California motorists report that they never do this and another one in five (20%) say they almost never do this.

- Males and Spanish-dominant Hispanics are more likely to say they clean brake dust than other gender and ethnical groups.
- English-dominant Hispanics are more likely to never clean the brake dust.

**BRAKE DUST CLEANING BEHAVIOR – BY ETHNICITY, GENDER**

	Wave 2	Wave 1	Non-Hispanic	Hispanic	English Dominant Hispanic	Spanish Dominant Hispanic	Male	Female
<u>Frequency of Cleaning Brake Dust</u>	%	%	%	%	%	%	%	%
I regularly clean the brake dust off my wheels	28	30	26	30	21	39	34	20
Every so often, I clean the brake dust off my wheels	33	36	34	30	30	31	34	31
Rarely/never clean the brake dust off my wheels	40	34	40	40	49	31	33	48
Rarely or almost never	20	18	20	21	26	16	18	22
Never	20	16	21	19	23	15	15	26
<u>Where Clear Brake Dust</u>								
At home	26	24	28	24	18	29	28	25
At a car wash	25	26	22	30	25	36	30	20
Sometimes at a car wash and sometimes at home	9	16	10	7	9	5	10	7
N =	(313)	(303)	(194)	(119)	(57)	(62)	(166)	(147)

Q Which best describes you?

Q Where you do usually clean the brake dust off your wheels?



22. While not statistically significant, directional gains are seen in some areas: while an alarming number of California motorists report that in the last six months, they left things (like old furniture, appliances, green waste, or leaves) “on the side of the highway”, this is slightly lower (17% vs. 19%). Similarly, 4% admit to sometimes not picking up after their dog poops on the side of the highway, down from 6% in February 2016. A similar proportion (7% vs. 6%) sometimes haul things without making sure they are completely secured to the vehicle.

- Interestingly, higher income and male motorists are more likely to leave objects on the side of the highway.

**OTHER UNDESIRABLE BEHAVIORS MOTORISTS ENGAGE IN -- BY INCOME, GENDER**

	Wave 2	Wave 1	Higher (\$75K & Over)	Lower (Under \$75K)	Male	Female
		%	%	%	%	%
In last six months, have left things (like old furniture, appliances, green waste from their yard like lawn clippings, branches, or leaves) on the side of the highway	17	19	25	12	26	7
Sometimes/never do not pick up after dog poops on side of highway	4	6	6	3	5	3
Sometimes haul things without making totally certain it is completely secured to the vehicle	7	6	7	8	10	4
Do my best but it's inevitable that once in a while something accidentally falls out of my vehicle	12	14	12	11	13	10
N =	(313)	(303)	(123)	(187)	(166)	(147)

- Q *Sometimes people discard things (like old furniture, appliances, green waste from their yard like lawn clippings, branches, or leaves) on the side of the highway. In the last six months, have you ever left things like this on the side of the highway?*
- Q *In the last six months, have you ever had stopped while driving on a highway so your dog could poop?*
- Q *When your dog poops near the highway, do you pick up after it?*
- Q *Do you ever haul or transport anything by loading or attaching it to the outside of your vehicle?*
- Q *Do you make absolutely certain that whatever you are hauling is completely secured to the vehicle?*

23. Nearly half of motorists (45%) admit to sometimes littering - this number has not changed since the pre-wave. However, virtually no one says they litter even occasionally, or that they do so haphazardly or carelessly.

- English-dominant Hispanics and males are more likely to admit to littering. Male motorists are also more likely to sometimes litter when it is unavoidable.

**LITTERING BEHAVIOR -- BY ETHNICITY, GENDER**

	Wave 2	Wave 1	Non-Hispanic	Hispanic	English Dominant Hispanic	Spanish Dominant Hispanic	Male	Female
	%	%	%	%	%	%	%	%
Never litter	55	55	52	60	44	74	47	64
Admit to sometimes littering	45	45	48	40	56	26	53	36
I almost never litter. It is really rare that I ever litter.	28	29	31	24	33	16	31	25
I hardly ever litter	11	10	11	11	16	7	13	10
I sometimes litter when it's unavoidable	5	6	5	4	7	2	8	1
I don't care about littering because it gets picked up anyways	1	0	1	1	0	2	1	1
N =	(313)	(303)	(194)	(119)	(57)	(62)	(166)	(147)

Q About how often do you litter?

24. Four in ten motorists (40%) discovered a fluid leak from their vehicle in the past several years. While most got it repaired immediately, a significant proportion did not. Those who discover leaking fluids are delaying action more than before: 35% report waiting (vs. 20% in 2016), whether a few days (23% vs. 15%) or weeks (3%, same as 2016), or topping off and not worrying about it (9%, significantly higher than 3% in February 2016).

- Men are more likely to recall having discovered a leak than are women.

#### ACTION WHEN ENCOUNTERING LEAKING FLUIDS

	Wave 2	Wave 1	Non-Hispanic	Hispanic	English Dominant Hispanic	Spanish Dominant Hispanic	Male	Female
	%	%	%	%	%	%	%	%
In the past several years, discovered or learned that vehicle was leaking fluids	40	39	43	35	44	26	46	33
Immediately get it repaired	26	31	30	19	25	13	31	19
Have not promptly attended to leaking fluids after discovering them	14	8	13	16	19	13	14	14
Wait a few days before repair	9	6	9	9	7	11	9	10
Wait a few weeks before repair	1	1	1	2	4	0	2	0
Re-fill, not until had time or money	4	1	3	5	9	2	3	4
Have not discovered or learned that vehicle was leaking fluids	60	61	57	66	56	74	54	67
N =	(313)	(303)	(194)	(119)	(57)	(62)	(166)	(147)

- Q In the past several years, have you ever discovered or learned that your vehicle was leaking any fluids (oil, transmission fluid, brake fluid, radiator fluid, etc.)?
- Q What would you do if you discovered or learned that your vehicle was slowly leaking fluids (oil, transmission fluid, brake fluid, radiator fluid, etc.)?

#### ACTION TAKEN UPON DISCOVERING LEAKING FLUIDS (Among Those Who Have Discovered or Learned That Vehicle Was Leaking Fluids)

	Wave 2	Wave 1
	%	%
Immediately get it repaired	65	80
Wait a few days before getting it repaired	23	15
Wait a few weeks before getting it repaired	3	3
Re-fill the leaking fluid and not really worry about it until I had the time or the money	9	3
N =	(124)	(117)

- Q What would you do if you discovered or learned that your vehicle was slowly leaking fluids (oil, transmission fluid, brake fluid, radiator fluid, etc.)?

*PERCEPTIONS OF ENVIRONMENTAL ISSUES*

25. Slightly more than half of California motorists (54%) say the water pollution issue is very serious and another 38% call it “somewhat serious” with “some consequences”. There is a strong association between recall of advertising about clean highways and clean waterways and the seriousness that Californians place on pollution to water bodies in and around their area.

- Those who recall advertising or its messages or believe there is a connection between highway pollution and the quality of water are substantially more likely to believe water pollution in their area is a very serious issue with serious consequences.

**SERIOUSNESS OF POLLUTION TO WATER BODIES IN AND AROUND YOUR AREA**

			Recall Advertising About Clean Highways & Clean Waterways		Recall Message: Clean Water Starts with Clean Highways		Recall Message: Protect Every Drop	
	Wave 2	Wave 1	Yes	No	Yes	No	Yes	No
	%	%	%	%	%	%	%	%
Very serious - it has serious consequences	54	50	69	45	67	45	62	48
Somewhat serious - it has some consequences	38	43	27	45	30	43	32	43
Not that serious - it has minor consequences	7	6	5	9	3	10	6	8
Not at all serious - There's very little pollution and it's of little consequence	1	1	0	2	0	2	1	1
N =	(313)	(303)	(124)	(189)	(132)	(181)	(151)	(162)

			Believe There Is A Connection Between Hwy Pollution & Quality Of Water		Recall / Recognize Billboard or Online Preroll Ads	
	Wave 2	Wave 1	Yes	No	Yes	No
	%	%	%	%	%	%
Very serious - it has serious consequences	54	50	59	31	65	44
Somewhat serious - it has some consequences	38	43	35	51	32	43
Not that serious - it has minor consequences	7	6	6	14	3	11
Not at all serious - There's very little pollution and it's of little consequence	1	1	0	4	0	2
N =	(313)	(303)	(264)	(49)	(158)	(155)

Q How serious a problem do you think pollution is to water bodies in and around (\_\_\_\_\_)?

26. While motorists are more likely to blame industrial and manufacturing plants for water pollution than anything else (27%), some acknowledge that the main culprit is sewer/waste water treatment plants (15%), litter in the streets/roadways (13%, significant decrease from Wave 1), or storm drains (13%). Motor oil (10%) and pesticides/fertilizers (6%) are also pointed to on occasion. Only 3% point to particles from vehicles or debris from vehicles. 4% point to not picking up dog or animal waste. Only 1% point to improper disposal of paints.

- Polluted waterways or bodies of water continue to rank in the middle of a host of environmental issues, ahead of hazardous waste, but behind several other concerns like water supply, global warming, air pollution, and traffic congestion. Polluted water is about on par with population growth.
- Those motorists who recall seeing the exact billboard or online preroll ad, are more likely to point to the significance of such problems as motor oil disposal, pesticides, improperly disposed paints, storm drains, dog or animal waste, particles on motor vehicles.

**PERCEIVED CONTRIBUTION TO WATER POLLUTION IN AREA**

	Contributes A Lot		Primary Cause		Contributes A Lot	
	Wave 2	Wave 1	Wave 2	Wave 1	Recall Ads	Do not Recall Ads
	%	%	%	%	%	%
Industrial and manufacturing plants	47	45	27	25	50	43
Litter in the streets and roadways	43	45	13	20	48	38
Motor oil and automotive fluids disposed outside	41	44	10	6	47	34
Sewer / waste water treatment plants	39	41	15	14	43	35
Pesticides and fertilizers used in the people's yards	37	39	6	8	42	32
Paints that are not disposed of properly	35	36	1	2	44	26
Water than runs into storm drains when it rains	35	38	13	9	42	28
People not picking up their dog or animal's waste	29	32	4	2	37	20
Debris that falls off of vehicles	28	30	4	3	35	20
Agriculture	27	24	6	6	30	22
Particles that accumulate on motor vehicles	26	29	1	3	34	17
None of these	17	18	0	0	10	24
N =	(310)	(299)	(310)	(299)	(158)	(152)

Q How much do you think each of the following contributes to water pollution in the (\_\_\_\_\_) area?  
Please answer from 1 to 5 with a "5" being "a lot" and 1 being "not at all".

27. Of six organizations, motorists say they would take the claims and recommendations of Keep California Beautiful most seriously – the number has not changed significantly since February 2016 (70% vs. 72%).

- Heal the Bay edges Sierra Club for second. NRDC, Tree People, and Coast Keepers Alliance are less likely to be seriously considered, mainly because a substantial minority of Californians have not heard of these organizations.
- Those Californians who recall seeing actual ads are more likely to be familiar with all mentioned organizations and to consider their claims and recommendations very or somewhat seriously.

**CONSIDERATION OF CLAIMS AND RECOMMENDATIONS OF VARIOUS ORGANIZATIONS**

	Would Consider Them (Very / Somewhat)		Not Familiar / Never Heard Of Them	
	Wave 2	Wave 1	Wave 2	Wave 1
	%	%	%	%
Keep California Beautiful	70	72	17	17
Heal the Bay	59	64	28	27
Sierra Club	57	57	25	27
NRDC (Natural Resources Defense Council)	51	53	33	37
Tree People	51	48	31	36
Coast Keepers Alliance	50	52	33	37

N who believe pollution to water bodies is a problem = (310) in Wave 2, (299) in Wave 1

**CONSIDERATION OF CLAIMS AND RECOMMENDATIONS OF VARIOUS ORGANIZATIONS – BY  
RECALLING/RECOGNIZING BILLBOARD OR ONLINE PREROLL ADS**

	Would Consider Them (Very / Somewhat)		Not Familiar / Never Heard Of Them	
	Recall The Ad	Do Not Recall The Ad	Recall The Ad	Do Not Recall The Ad
	%	%	%	%
Keep California Beautiful	81	58	7	28
Heal the Bay	76	41	11	45
Sierra Club	72	40	11	38
Tree People	70	31	13	50
NRDC (Natural Resources Defense Council)	68	34	14	52
Coast Keepers Alliance	67	33	11	56

N who believe pollution to water bodies is a problem = (310) in Wave 2, (299) in Wave 1

Q How much seriously do you consider the claims and recommendations of these organizations?

## **IMPLICATIONS & RECOMMENDATIONS**

1. Recognize that the success of this campaign may be subject to outside influence beyond the campaign itself, particularly – perceptions about the quantity of water, which is dependent on annual climate and rainfall.
2. The ad creative seems to be working, based on aided recognition when the creative is shown, the ad campaign appears to be breaking through the clutter. However the increased rainfall has led to a more challenging environment for public acceptance of the campaign's messages. Therefore, consider additional media spending to heighten the public's awareness.
3. Consider a new message strategy that convinces the audience that a water quality problem does not lessen when there is more rainfall or less immediate crisis of draught. If applicable, communicate that increased rainfall raises the importance of clean highways for clean waterways.
4. While there is room for improvement, California motorists make a strong association between highway litter and polluted waterways. However, there is a substantial opportunity for improvement for behaviors beyond reducing littering. This reinforces the campaign's broad-based focus on several other behaviors that lead to unclean waterways.
5. The seven main behaviors that the campaign asks motorists to change appear strategically justified. The infographic appears to capture these behaviors and should be widely circulated.
6. In particular, seek to reduce the alarming number of motorists who discard things such as furniture, appliances, and green waste on the side of the highway.
7. Consider using programmable highway signs to caution the public about such undesirable behaviors or to encourage desired behaviors.
8. Encourage motorists to dust off their tires (and to properly inflate their tires) by displaying messages at gasoline service stations. This message is especially important for female motorists.
9. Reinforce desirable behavior at car washes by reminding the public that by taking their vehicle to a car wash, they are not only cleaning their vehicle, they are also keeping California highways and ultimately California waterways clean.
10. Reach pet owners at pet adoption agencies and other sources such as veterinary offices, pet retail store programs, social media, etc. Encourage pet owners who pull over on the side of the roadway so their dog can poop to always remember to pick up. Remind them that just because they are not in their neighborhood or a public place does not mean that pet waste is any less caustic.

**APPENDIX**

*QUESTIONNAIRE*



CALTRANS STORMWATER CAMPAIGN AWARENESS & ATTITUDES TRACKING STUDY

CONSUMERQUEST # 1584 -- 05/17

3231 Ocean Park Blvd. Ste. 104

Santa Monica, CA 90405

tele (310) 207-6605

**ONLINE QUESTIONNAIRE FOR POST WAVE**

(DISABLE BACK BROWSER BUTTON. FOR AGE 18+, 60% OF INVITATIONS SHOULD BE SENT TO MALE HEAD OF HOUSEHOLD, 40% TO FEMALE HEAD OF HOUSEHOLD. DESCRIBE THE SUBJECT MATTER OF SURVEY AS: "Different types of advertising.")

- A1. Do you or does anyone in your household work in advertising, marketing research, or State government?
1. No → (CONTINUE)
  2. Yes → (TERMINATE)
- A2. Which of the following categories best describes your annual household income before taxes? (REQUIRE ANSWER, BUT ALLOW "8").
3. Less than \$20,000
  4. \$20,000- but less than \$35,000
  5. \$35,000 but less than \$50,000
  6. \$50,000 but less than \$75,000
  7. \$75,000 but less than \$100,000
  8. \$100,000 but less than \$150,000
  9. More than \$150,000
  10. Prefer not to say
- A3. And what is your ethnic background?
11. White or Caucasian
  12. Latino or Hispanic
  13. African-American or Black
  14. Asian American
  15. Native American
  16. Other (SPECIFY: \_\_\_\_\_)

ASK B1-B2 ONLY IF A3=2 (HISPANIC OR LATINO):

- B1. What language do you speak at home?
1. I only speak Spanish → QUALIFIES AS SPANISH DOMINANT/BILINGUAL
  2. I speak just a little English → QUALIFIES AS SPANISH DOMINANT/BILINGUAL
  3. I speak both languages well but prefer to speak Spanish → QUALIFIES AS SPANISH DOMINANT/BILINGUAL
  4. I speak either English or Spanish → QUALIFIES AS SPANISH DOMINANT/BILINGUAL
  5. I speak both languages well but prefer to speak English → QUALIFIES AS ENGLISH DOMINANT
  6. I speak just a little Spanish → QUALIFIES AS ENGLISH DOMINANT. SKIP TO C.
  7. I only speak English → QUALIFIES AS ENGLISH DOMINANT. SKIP TO C.

INTERVIEW 65 SPANISH-DOMINANT/BILINGUAL HISPANIC, 65 ENGLISH DOMINANT HISPANIC.

- B2. Which of the following applies to you? (MARK ALL THAT APPLIES)
1. I listen to Spanish language radio
  2. I watch Spanish language television
  3. I read Spanish language magazines
  4. I read Spanish language newspapers
  5. I access Spanish language websites



C. Please tell us your gender and age. Are you a?

- 1. Male 17 years or younger → TERM
- 2. Male 18-24 years old
- 3. Male 25-29 years old } RECRUIT 60
- 4. Male 30-39 years old → RECRUIT 60
- 5. Male 40-49 years old → RECRUIT 60
- 6. Male 50 years or older → TERM
- 7. Female 17 years or younger → TERM
- 8. Female 18-24 years old
- 9. Female 25-29 years old } RECRUIT 40
- 10. Female 30-39 years old → RECRUIT 40
- 11. Female 40-49 years old → RECRUIT 40
- 12. Female 50 years or older → TERM

C1. Do you live in California?

- 1. Yes
- 2. No → TERMINATE.

C2. Which of these areas do you live in or near? (DO NOT RANDOMIZE LIST:)

- 1. San Diego
  - 2. Orange County
  - 3. Inland Empire (San Bernardino/Riverside)
  - 4. Los Angeles
  - 5. Bakersfield → TERMINATE.
  - 6. Fresno → TERMINATE.
  - 7. San Fran/Oakland/San Jose Bay Area
  - 8. Sacramento
  - 9. Monterey/Salinas → TERMINATE
  - 10. Palm Springs → TERMINATE.
  - 11. Santa Barbara → TERMINATE.
  - 12. Chico/Redding → TERMINATE.
  - 13. Do not live in or near any of these areas → TERMINATE.
- } SET QUOTAS TO APPROXIMATE POPULATION.

CHECK QUOTAS. TERMINATE IF 5, 6, 9, 10, 11, 12, OR 13.

D. Which of the following describes the type of residence you live in.... (READ LIST. CIRCLE ONE:)

- 1. A single family home that you own → QUALIFIES AS HOMEOWNER. INTERVIEW 150.
- 2. A single family home that you rent
- 3. A townhome or condominium that you own → QUALIFIES AS HOMEOWNER. INTERVIEW 150.
- 4. A townhome or condominium that you rent
- 5. An apartment

E1. In the past 30 days about how many times have you personally driven a car on a freeway, California State highway, or interstate highway?

RECORD EXACT NUMBER (ACCEPT ANSWER FROM 0-400): \_\_\_\_\_ # OF TIMES

TERMINATE IF ANSWER IS 0.

E2. And during the last 30 days, about how many total miles do you think you've driven on freeways, State highways, or interstates?

RECORD EXACT NUMBER (ACCEPT ANSWER FROM 1-99999): \_\_\_\_\_ TOTAL # OF MILES

- Listed below are some different public service advertising campaigns that may or may not have run in your area in the past six months. Think about ads you've seen or heard on TV or radio, online, in newspapers or magazines, or outdoors (billboards, posters in shopping malls, etc.). Also think about social media messages that you may have seen. For each advertising or social media campaign listed, please tell us whether or not you saw or heard it advertised in the past six months.

In the past six months, do you recall seeing or hearing any..... (CLICK ONE ANSWER FOR EACH LISTED:) [RANDOMIZE A-B AND D-E. ALWAYS ASK D & E LAST, AFTER C:]

	<u>YES</u>	<u>NO</u>	<u>NOT SURE</u>
a) Advertising about the benefits of eating five servings of fruits and vegetables everyday .....	1 .....	2.....	3
b) Advertising about the benefits of eating a diet that is high in fiber .....	1 .....	2.....	3
c) Advertising about how it is important to recycle.....	1 .....	2.....	3
d) Advertising about how it is important to conserve our water supply .....	1 .....	2.....	3
e) Advertising about clean highways and clean waterways .....	1 .....	2.....	3

**IF Q.1E= 2, SKIP TO INSTRUCTION BEFORE Q.3DD. OTHERWISE, CONTINUE.**

- You said that you (IF "1" heard or saw / IF "3" may have heard or seen) (INSERT ANSWER IN E)".

Where did you see or hear this advertising? Please check the primary place you recall seeing or hearing this advertising in the last six months in column A and any other places you can recall it from in column B.

	[A] PRIMARY PLACE	[B] ALL OTHER PLACES
Billboard.....	1.....	1
Bus Advertising .....	2.....	2
Poster in shopping mall.....	3.....	3
Internet/Online .....	4.....	4
Magazine.....	5.....	5
Newspaper .....	6.....	6
Radio .....	7.....	7
Television.....	8.....	8
Traffic Reports / Traffic Reporters.....	9.....	9
Your Facebook, Instagram, or Twitter feed.....	10.....	10
School.....	11.....	11
Other (SPECIFY: _____) .....	12.....	12
Don't Remember .....	13.....	13

**IF Q.1E=1, CONTINUE TO ASK Q.3B1 AND Q.3B2. THESE APPEAR ON THE SAME PAGE.**

- 3b1. What do you remember about the advertising? Please be as specific as possible.

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- 3b2. What was the one main message that the advertising told you? Please be as specific as possible about what the advertising was trying to tell you.

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3c. Here are some different things that the advertising or social media may or may not have been trying to tell you about clean highways and clean waterways. Please read the entire list carefully, then check all those that you remember the advertising trying to tell you. (RANDOMIZE ORDER OF 1-9. ALLOW MULTIPLE ANSWERS).

- Littering on the highway pollutes the water ..... 1
- Flicking cigarette butts on the ground pollutes the water ..... 2
- Leaky motor vehicle fluids pollute the water ..... 3
- Debris from motor vehicles pollutes the water ..... 4
- Particles that accumulate on motor vehicles pollute the water ..... 5
- Underinflated tires cause extra wear that pollute the water ..... 6
- Illegal dumping pollutes the water ..... 7
- Heavy metals that come from tires and brakes pollute the water ..... 8
- Using chemical pesticides, herbicides, and fertilizers  
pollutes the water ..... 9
- Other (SPECIFY: \_\_\_\_\_)..... 10
- Can't remember / Not sure / Don't know ..... 11

3d. What was the specific tag line or theme line used in the advertising? Check all of the messages it was trying to tell you. (RANDOMIZE ORDER, KEEPING 2-5 TOGETHER AS ONE BLOCK AND 7-8 TOGETHER AS ANOTHER BLOCK. ALLOW MULTIPLE ANSWERS).

- Clean Water Starts With Clean Highways..... 1
- Love Every Drop ..... 2
- Love Our Water ..... 3
- Protect Every Drop ..... 4
- Save Our Water ..... 5
- Don't Trash Our Highways ..... 6
- Cleaner Running Vehicles Mean Cleaner Air ..... 7
- Help Keep Our Air Clean California ..... 8
- Other (SPECIFY: \_\_\_\_\_) ..... 9
- Can't remember / Not sure / Don't know ..... 10

RANDOMIZE ORDER OF Q.3DD-3EE:

3dd. Do you recall seeing or hearing advertising with the message "Clean Water Starts With Clean Highways"?

- Yes ..... 1
- No ..... 2

3ee. Do you recall seeing or hearing advertising with the message "Protect Every Drop.?"

- Yes ..... 1
- No ..... 2

4a1. Do you believe there is a connection between highway pollution (including litter on highways) and the quality of water in California creeks, lakes, rivers and the ocean?

- Yes..... 1
- No..... 2 → SKIP TO INSTRUCTION BEFORE Q.5.

4a2. Knowing that there is a connection between highway pollution (including litter on highways) and the quality of water in California creeks, lakes, rivers and the ocean, does this encourage you to maintain your vehicle properly and not litter or cause pollution on the highways you drive on?

- Yes..... 1

No..... 2 → SKIP TO INSTRUCTION BEFORE Q.5.

4b. How has it influenced how you maintain your vehicle or drive on highways and roadways? Check the one way it has the most influence on how you maintain your vehicle or drive on highways and roadways: (RANDOMIZE 1-9, ALWAYS KEEPING 5 AFTER 4. ACCEPT ONE ANSWER ONLY:)

- I never litter on the highway, never at all.....1
- I make absolutely sure that my motor vehicle is not leaking any fluids.....2
- If I am hauling anything, I always make absolutely sure that it is completely secured to the vehicle.....3
- If my vehicle gets dirty, I promptly wash it at home.....4
- If my vehicle gets dirty, I do not hesitate to take it to a car wash.....5
- I make absolutely sure that my tires are always properly inflated .....6
- I never dispose of any automotive fluids in the trash or on the ground .....7
- I wipe down my tires to remove particles that accumulate on them .....8
- I make sure that no trash accidentally falls out of my vehicle.....9
- Other (SPECIFY: \_\_\_\_\_).....10
- Don't know .....11

IF 4B = 11, SKIP TO INSTRUCTION BEFORE Q.5. OTHERWISE ASK:

4c. How else does it influence you? Click all that apply.

LIST REMAINING ANSWERS FROM Q.4B.

**ASK Q.5.1/2/3 -SERIES FOR INTERIM AND POST WAVES ONLY:**

5.1. (SHOW BILLBOARD AND ASK:) Do you recall seeing this billboard before?

*Shown to Northern California:*



*Shown to Southern California:*



Yes ..... 1

No ..... 2 → SKIP TO Q.5.2.

5.1a. Having seen or heard this advertising, do you think it has influenced how you maintain your vehicle or drive on highways and roadways?

Yes ..... 1

No ..... 2 → SKIP TO Q.5.2.

5.1b. How has it influenced how you maintain your vehicle or drive on highways and roadways? Check the one way it has had the most influence on how you maintain your vehicle or drive on highways and roadways: (RANDOMIZE 1-9, ALWAYS KEEPING 5 AFTER 4. ACCEPT ONE ANSWER ONLY:)

- I never litter on the highway, never at all.....1
- I make absolutely sure that my motor vehicle is not leaking any fluids.....2
- If I am hauling anything, I always make absolutely sure that it is completely secured to the vehicle.....3
- If my vehicle gets dirty, I promptly wash it at home.....4
- If my vehicle gets dirty, I do not hesitate to take it to a car wash.....5
- I make absolutely sure that my tires are always properly inflated .....6
- I never dispose of any automotive fluids in the trash or on the ground .....7
- I wipe down my tires to remove particles that accumulate on them .....8
- I make sure that no trash accidentally falls out of my vehicle.....9
- Other (SPECIFY: \_\_\_\_\_).....10
- Don't know .....11

IF 5.1B = 11, SKIP TO INSTRUCTION BEFORE Q.6. OTHERWISE ASK:

5.1c. How else has it influenced you? Click all that apply.

LIST REMAINING ANSWERS FROM Q.5B.

5.2. (SHOW VIDEO - NOT SCREEN SHOT - FOR ONLINE PRE-ROLL AND ASK:) Do you recall seeing this before?



Yes ..... 1

No ..... 2 → SKIP TO INSTRUCTION BEFORE Q.6.

5.2a. Having seen or heard this advertising, do you think it has influenced how you maintain your vehicle or drive on highways and roadways?

Yes ..... 1

No ..... 2 → SKIP TO INSTRUCTION BEFORE Q.6.

5.2b. How has it influenced how you maintain your vehicle or drive on highways and roadways? Check the one way it has had the most influence on how you maintain your vehicle or drive on highways and roadways: (RANDOMIZE 1-9, ALWAYS KEEPING 5 AFTER 4. ACCEPT ONE ANSWER ONLY:)

- I never litter on the highway, never at all ..... 1
- I make absolutely sure that my motor vehicle is not leaking any fluids ..... 2
- If I am hauling anything, I always make absolutely sure that it is completely secured to the vehicle ..... 3
- If my vehicle gets dirty, I promptly wash it at home ..... 4
- If my vehicle gets dirty, I do not hesitate to take it to a car wash ..... 5
- I make absolutely sure that my tires are always properly inflated ..... 6
- I never dispose of any automotive fluids in the trash or on the ground ..... 7
- I wipe down my tires to remove particles that accumulate on them ..... 8
- I make sure that no trash accidentally falls out of my vehicle ..... 9
- Other (SPECIFY: \_\_\_\_\_) ..... 10
- Don't know ..... 11

IF 5.2B = 11, SKIP TO INSTRUCTION BEFORE Q.6. OTHERWISE ASK:

5.2c. How else has it influenced you? Click all that apply.

LIST REMAINING ANSWERS FROM Q.5B.

ASK EACH SERIES IN Q.6-14 IN RANDOM ORDER:

6. Sometimes people discard things (like old furniture, appliances, green waste from their yard like lawn clippings, branches, or leaves) on the side of the highway. In the last six months, have you ever left things like this on the side of the highway?
  1. Yes
  2. No
  
7. In the last six months, have you ever had stopped while driving on a highway so your dog could poop?
  1. Yes
  2. No → SKIP TO NEXT QUESTION.
  
- 7a. When your dog poops near the highway, do you pick up after them?
  1. Yes, always
  2. Yes, sometimes
  3. No, usually not
  
8. Do you ever haul or transport anything by loading or attaching it to the outside of your vehicle?
  1. Yes, regularly
  2. Yes, but only once in a while
  3. No → SKIP TO NEXT QUESTION.
  
- 8a. Do you make absolutely certain that whatever you are hauling is completely secured to the vehicle?
  1. I always make absolutely certain that whatever I am hauling is completely secured to my vehicle
  2. I usually make absolutely certain that whatever I am hauling is completely secured to the vehicle, but once in a while I am not totally certain
  3. I sometimes make absolutely certain that whatever I am hauling is completely secured to the vehicle, but sometimes I am not totally certain
  
9. Which best describes you?
  1. I regularly check and make certain that my tires are properly inflated
  2. Every so often, I check and make certain that my tires are properly inflated
  3. I go by how my vehicle feels when I'm driving it, and can tell when my tires are not properly inflated or close to it
  4. I sometimes think that my tires are properly inflated, but sometimes I am not totally certain
  5. I really don't worry or think about this too much
  
10. Which best describes you?
  1. I regularly clean the brake dust off my wheels
  2. Every so often, I clean the brake dust off my wheels
  3. I rarely or almost never clean the brake dust off my wheels →SKIP TO NEXT QUESTION
  4. I never wipe clean the brake dust off my wheels →SKIP TO NEXT QUESTION
  
- 10a. Where you do **usually** clean the brake dust off your wheels?
  1. At a car wash
  2. At home
  3. Sometimes at a car wash and sometimes at home



11. Which best describes you?
1. If my vehicle gets dirty, I do not hesitate to take it to a car wash
  2. If my vehicle gets dirty, I wait a while before taking it to a car wash
  3. If my vehicle gets dirty, I wash it at home
  4. If my vehicle gets dirty, I usually wait until it rains and do not worry about washing it
12. Which best describes you?
1. I always make sure that nothing accidentally falls out of my vehicle
  2. I do my best but it's inevitable that once in a while something accidentally falls out of my vehicle
13. Let's face it: Almost everyone litters at least once. For example, some people litter by tossing a plastic wrapper or cigarette butt out the window of a car. About how often do you litter?
1. I never, ever litter
  2. I almost never litter. It is really rare that I ever litter.
  3. I hardly ever litter
  4. I sometimes litter when it's unavoidable
  5. I don't care about littering because it gets picked up anyways
14. In the past several years, have you ever discovered or learned that your vehicle was leaking any fluids (oil, transmission fluid, brake fluid, radiator fluid, etc.)?
1. Yes
  2. No → SKIP TO NEXT QUESTION.
- 14a. What would you do if you discovered or learned that your vehicle was **slowly** leaking fluids (oil, transmission fluid, brake fluid, radiator fluid, etc.)?
1. Immediately get it repaired
  2. Wait a few days before getting it repaired
  3. Wait a few weeks before getting it repaired
  4. Re-fill the leaking fluid and not really worry about it until I had the time or the money

15intro. We're almost finished. Just a few more questions.....

15. Here are some different environmental issues that the people of the (INSERT ANSWER FROM Q.C2) area may face today and in the near future. For each issue, tell us if you think it is a very serious threat to the (INSERT ANSWER FROM Q.C2) area today, a somewhat serious threat to the (INSERT ANSWER FROM Q.C2) area today, or not that much of a threat to the (INSERT ANSWER FROM Q.C2) area today.

RANDOMIZE:

1. Polluted, lakes, rivers and creeks
2. Polluted ocean or bay
3. Inadequate water supply
4. Air pollution
5. Household hazardous waste
6. Increased traffic congestion
7. Population growth
8. Global warming

SCALE IS:

1. A very serious threat to the area today
2. A somewhat serious threat to the area today
3. Not that much of a threat to the area today

- 16a. Now, please rank these issues in order of how important they are to the people of the (INSERT ANSWER FROM Q.C2) area today. Put a 1 next to the most critical or pressing issue, a 2 next to the next most important or pressing issue, and so on, until you've ranked them all.

- 16b. How serious a problem do you think pollution is to water bodies in and around (INSERT ANSWER FROM Q.C2)?

1. Very serious – Rivers, lakes and streams in the area are polluted and it has serious consequences
2. Somewhat serious – There's some pollution to, rivers, lakes and streams in the area and it has some consequences
3. Not that serious – There's some pollution to, rivers, lakes and streams in the area but it has minor consequences
4. Not at all serious – There's very little pollution to, rivers, lakes and streams in the area and it is of little consequence

IF "4", SKIP TO Q.END.

17. How much do you think each of the following contributes to water pollution in the (INSERT ANSWER FROM Q.C2) area? Please answer from 1 to 5 with a "5" being "a lot" and 1 being "not at all".

RANDOMIZE:

1. Industrial and manufacturing plants
2. Sewer / Waste water treatment plants
3. Litter in the streets and roadways
4. Agriculture
5. Water that runs into storm drains when it rains
6. People not picking up their dog or animal's waste
7. Pesticides and fertilizers used in the people's yards
8. Motor oil and automotive fluids disposed outside
9. Paints that are not disposed of properly
10. Particles that accumulate on motor vehicles
11. Debris that falls off of vehicles

18. If you had to guess, what would you say are the three major causes of water pollution in the (INSERT ANSWER FROM Q.C2) area? Type a "1" next to the primary cause, a "2" next to the second most cause, and a "3" next to the third most cause.

LIST ANY ANSWERED "5" IN Q.12.

IF FEWER THAN 3 ARE ANSWERED "5", ADD ITEMS ANSWERS "4".

IF FEWER THAN 3 ARE ANSWERED "4" OR "5", ADD ITEMS ANSWERS "3".

IF FEWER THAN 3 ARE ANSWERED "3", "4" OR "5", ADD ITEMS ANSWERS "2".

OTHERWISE, SHOW ALL STATEMENTS.

19. How much seriously do you consider the claims and recommendations of these organizations? (LIST IN GRID. RANDOMIZE ROWS).

	Not Familiar/ Never Heard of Them	Not Very Seriously Consider Them	Somewhat Seriously Consider Them	Very Seriously Consider Them
1. NRDC (Natural Resources Defense Council)	1	2	3	4
2. Coast Keepers Alliance	1	2	3	4
3. Heal the Bay	1	2	3	4
4. Keep California Beautiful	1	2	3	4
5. Sierra Club	1	2	3	4
6. Tree People	1	2	3	4

END. That's all the questions we have today! Thank you very much for your help!