

Stormwater Public Education Program Resident Population – Tracking Evaluation –

Prepared for:



**Los Angeles County Department of Public Works
and
Ogilvy Public Relations Worldwide**

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Background and Objectives

- As part of its ongoing efforts to combat the problem of stormwater pollution in Los Angeles County, the Department of Public Works, in conjunction with Ogilvy Public Relations Worldwide and several other contractors, developed a public education campaign designed to reduce harmful substances in stormwater runoff by generating public awareness, concern and behavior change.
- From its initial launch, the outreach campaign encouraged Los Angeles County residents to take ownership of their communities, help reduce stormwater pollution and be part of the “pollution solution” by adopting simple, everyday actions, including:
 - Throwing trash in a trash can or recycling container (as appropriate), not on the ground or into a storm drain.
 - Cleaning up after their dogs.
 - Always putting cigarette butts in an ashtray.
- Separate ongoing campaigns regarding used oil and household hazardous waste disposal, as well as school education and community clean up programs, have run in conjunction with the stormwater education efforts.
- The campaign’s current communications center on “Don’t Trash California” ads, “Don’t Trash Los Angeles County” ads and the Project Pollution Prevention message branding logo, which often feature the County’s Environmental Resources website, www.888CleanLA.com, to encourage residents to reduce litter as a way of keeping both neighborhoods and the water passing through the storm drains clean.
- The campaign utilizes a strategic mix of multi-media advertising, including television (English, Spanish), radio (English, Spanish and Asian), print (Spanish and Asian), LED boards, bus king/shelter placements, and Internet banner ads (English, Spanish).
 - Efforts also include media relations, corporate and non-profit partnerships, special events, community, school and business outreach.

Background and Objectives

- The specific goals of the 2008 campaign evaluation research are to:
 - Evaluate the effectiveness of the campaign in reaching residents.
 - Determine the level to which the Stormwater Public Education Campaign has penetrated public consciousness and influenced intentions and/or behavior.
 - Provide insights based on key learnings to help future pollution-reduction efforts in Los Angeles County.
- This report provides the findings from the most recent (2008) campaign evaluation survey and also includes data from the 1997 baseline, 2001, 2005, 2006 and 2007 tracking studies for comparative purposes.



Methodology

- In 1997, prior to the launch of a new public education campaign, baseline data regarding residents' attitudes and behavior about stormwater pollution was collected to establish a starting point for measurement of the campaign's impact.
- Subsequently, changes in awareness and attitudes related to stormwater pollution have been evaluated in a series of tracking studies including telephone interviews with 600 County residents in 2008.
 - Telephone interviews for 2008 were conducted between October 9 and October 22, 2008.
- For each of the tracking waves, participants were drawn from a representative sample of Los Angeles County residents using a random-digit phone number generation technique that captures land lines as well as cell phones.
- Participants were screened to be:
 - 16+ years of age.
 - Permanent residents of Los Angeles County.
 - Residents of Los Angeles County for at least six months.
- Interviews were conducted in either English or Spanish, at the preference of the interviewee.
- All data reported are unweighted.
- Statistical significance testing is at a 90% confidence level, with up arrows (↑) signifying a statistically significant increase in 2008 relative to the 1997 (or first year the question was asked) time period and down arrows (↓) signifying a significant decrease from 1997 (or first year the question was asked) to 2008.

Executive Summary and Conclusions

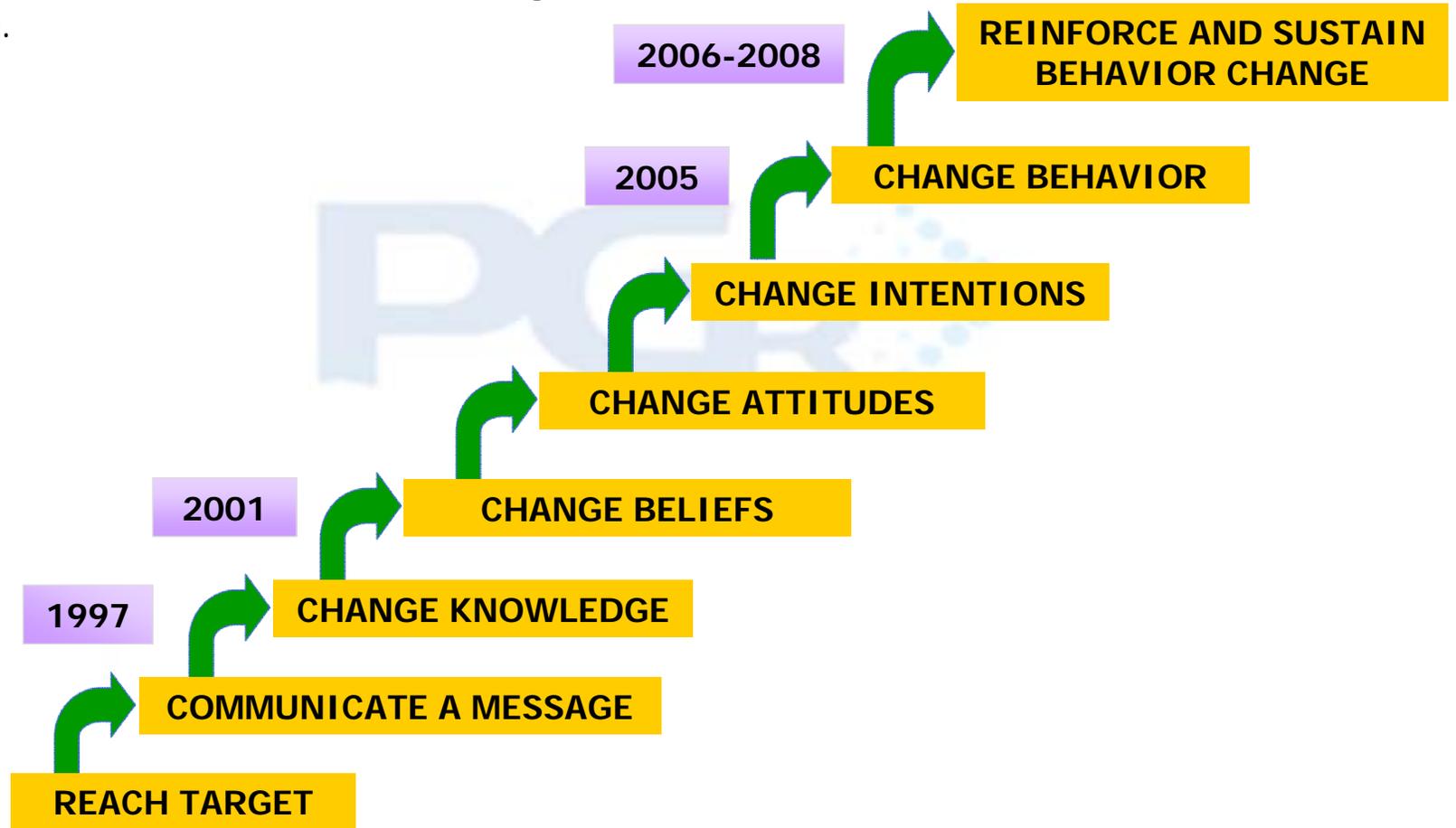
- Los Angeles County residents continue to be concerned and engaged in environmental issues, particularly when related to water quality, and maintain a willingness to change their behavior.
 - Support for public education efforts remains high, including four-out-of-five residents being in favor of promotion of a pollution-prevention hotline to report polluting offenses.
 - Los Angelinos feel strongly that everyone should be part of the solution, even if that means actively discouraging other people's polluting behavior.
- The consequences of water pollution are thought to be the ocean or bay being contaminated, beach closures, a negative impact on fish/wildlife and flooding. Health consequences, such as people/children getting sick from swimming in or being exposed to pollutants, is no longer being conveyed.
- Messages related to litter are breaking through at sustained levels, with outdoor and radio creative gaining greater attention this year.
 - In particular, "Don't Trash California" is a well-recognized tagline.
 - Residents are hearing and seeing messages about litter/trash in general and are being reminded that food wrappers, bottles and cigarette butts are particular problems.
- The top advertising message recall is simple and straightforward: "keep neighborhoods and beaches clean" and "litter/pollution from the street ends up in the ocean."
- Residents are, however, less likely to associate litter/trash with ocean/beaches and health consequences and more likely to be unaware of any specific consequences of litter than in previous years.
- Littering changes realized in 2005 have sustained their low levels, and some do-it-yourself polluting behaviors that escalated in 2006 and 2007 have returned to baseline levels.
- In terms of the actual numbers of littering occurrences, with a steadily increasing population, even static rates of behavior will result in more pollutants in the environment, highlighting the need for continuous improvement, not just sustained efforts.

Overview of Social Change Process



Social Change Process

To create behavior change related to societal, rather than individual needs, a **process** of education and encouragement must take place. Sustained efforts are needed to reinforce these messages over time.



DETAILED FINDINGS

➡ Attitudes and Awareness

Advertising Message Recall/Impact

Willingness to Change Pollution-Causing Behaviors

Behaviors Related to Stormwater Pollution

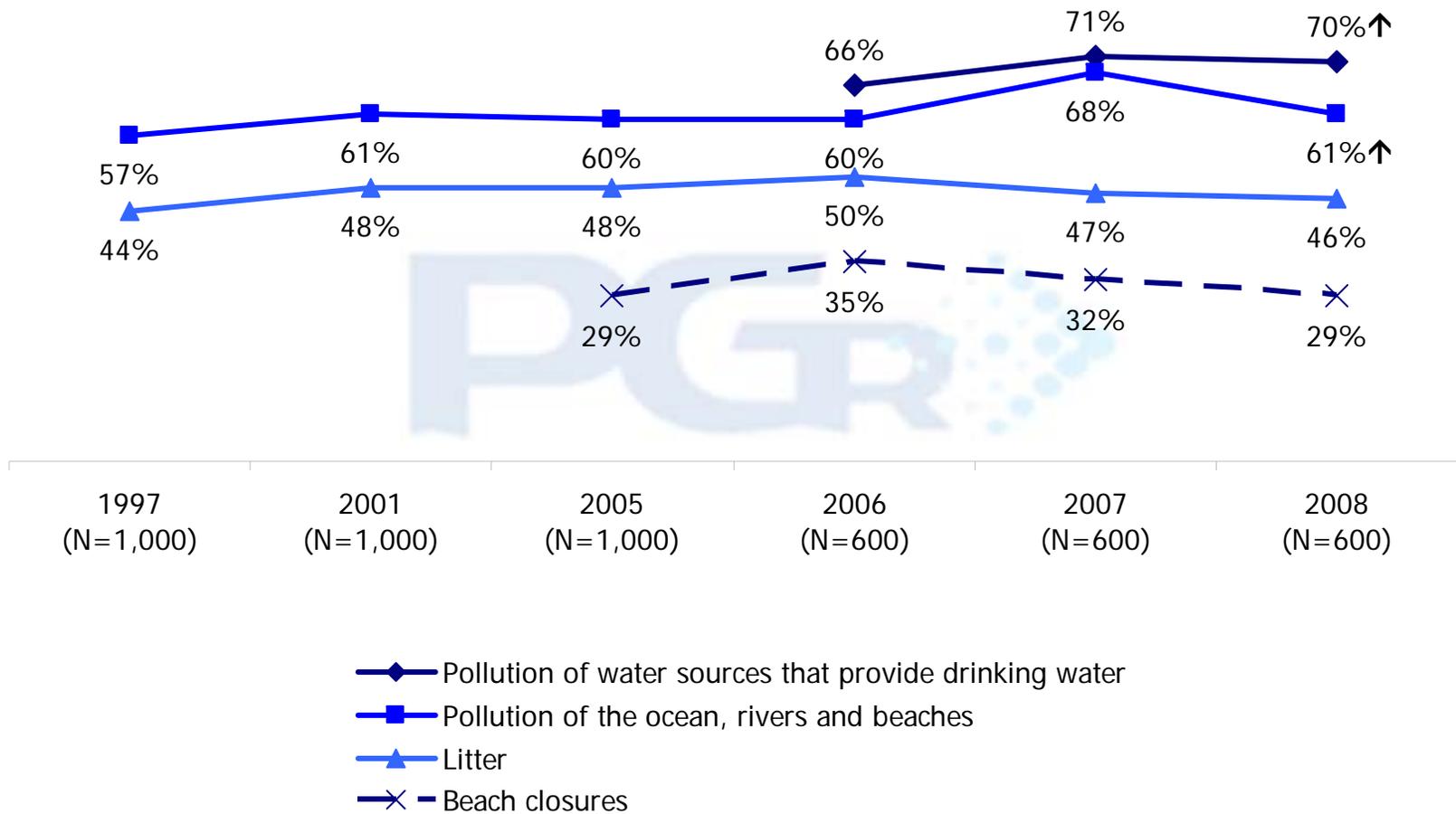
Lifestyle and Demographic Characteristics



Attitudes and Awareness

- Los Angeles County residents have an increasingly strong concern about pollution of both drinking water sources (70%) and the oceans, rivers and beaches (61%).
 - At levels that have increased since 1997, five-out-of-six residents (84%) consider themselves informed about the causes of ocean, river and beach pollution and 26% consider themselves to be very knowledgeable.
 - In a decrease from recent years, however, 61% of residents recall seeing or hearing messages about this pollution issue.
- Involvement with the more specific issue of litter continues to be very important to under half (46%) of residents, with recall of messaging on the topic having declined to 33% from 37% in 2005.
 - Television, radio and newspapers are still the leading sources from which County residents receive information about littering and outdoor sources are increasingly being noticed.
- Two-thirds of Los Angeles County residents (66%) are familiar with the slogan “Don’t Trash California.”
 - The one-quarter of residents now aware of the “Project Pollution Prevention” name is a six point gain from 2006, nearing the awareness (27%) of the 1(888)CLEAN LA phone number.

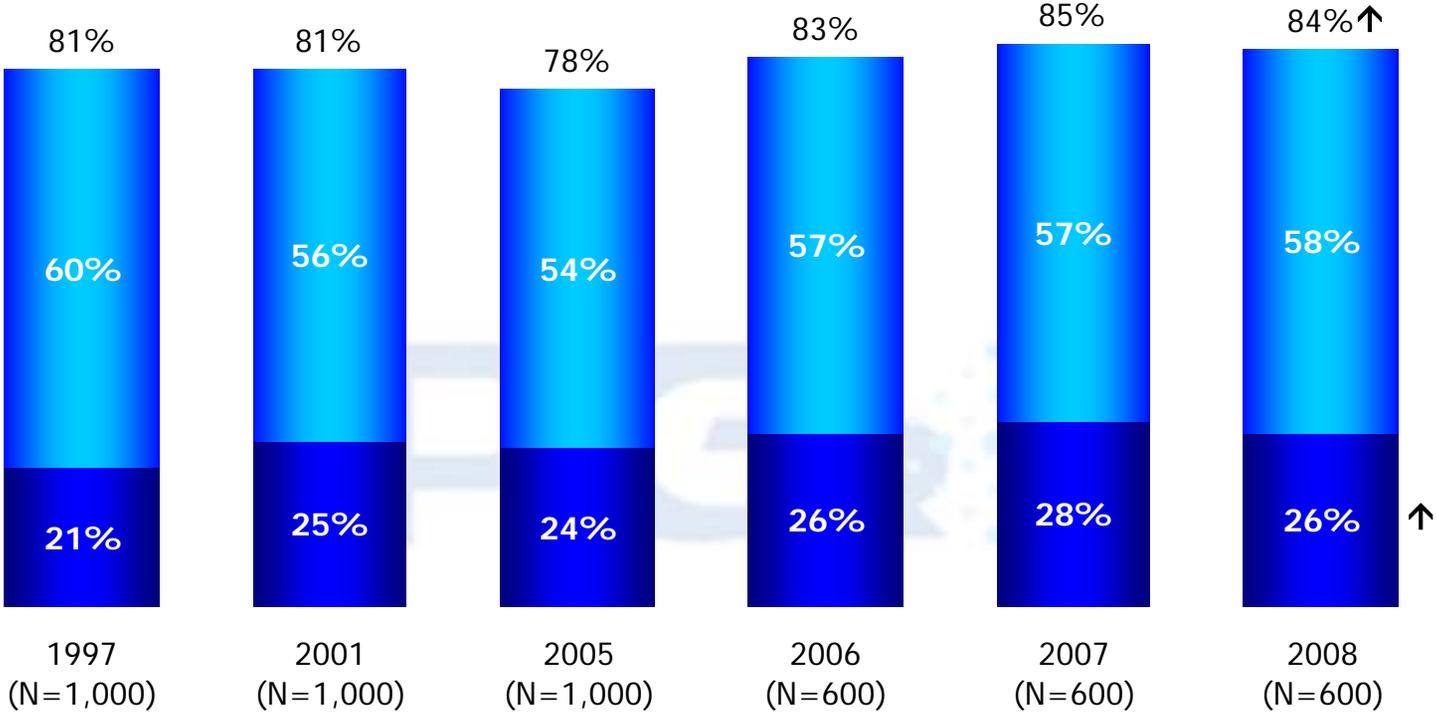
Concern About Issues Facing Los Angeles County – Very Concerned –



Base: Total Los Angeles County Residents (see base sizes above)
 Question: Q.1: How concerned are you about each of the following issues?

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Knowledge of Causes of Pollution – Very/Somewhat Knowledgeable –



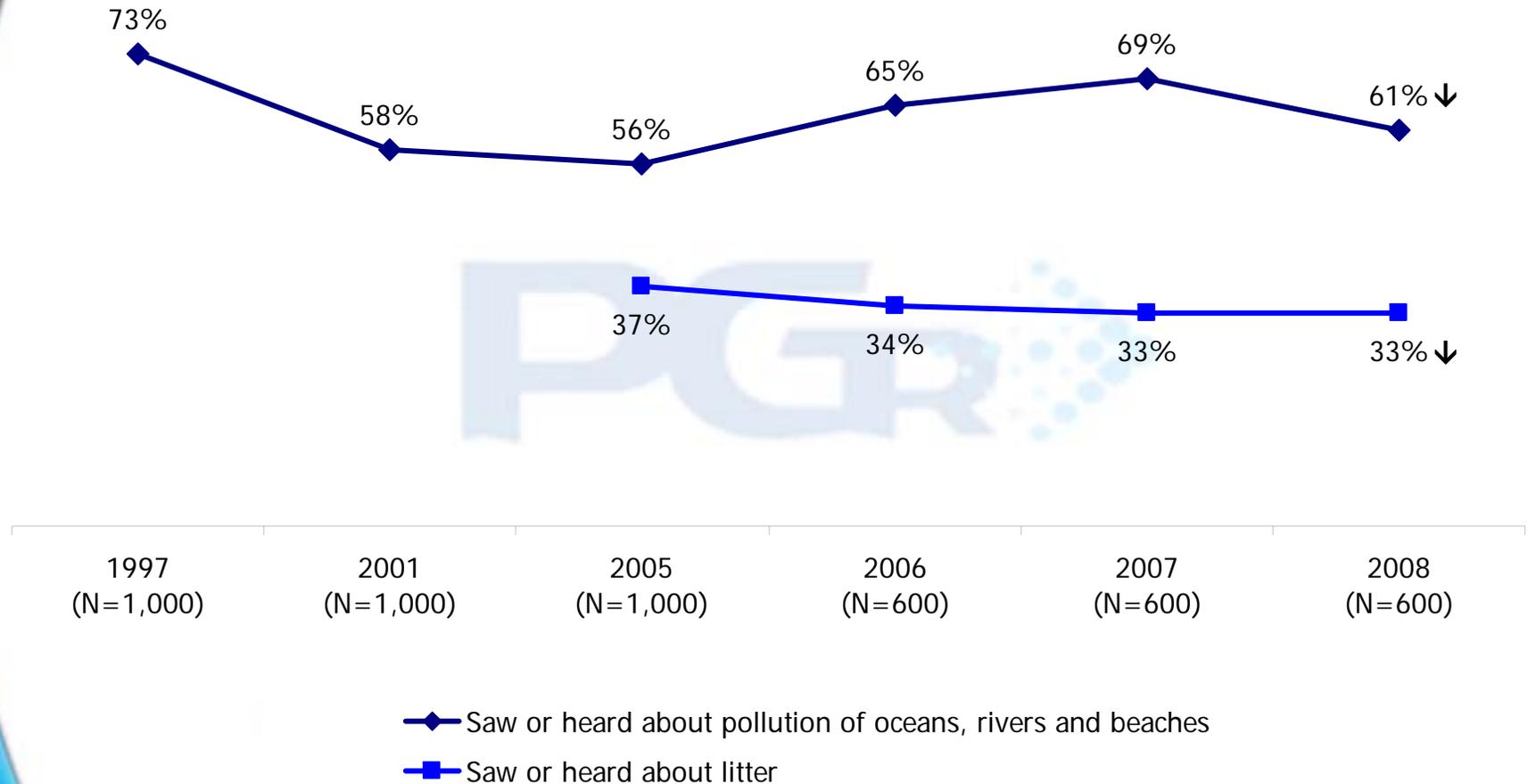
- Somewhat knowledgeable about causes of pollution of ocean, rivers and beaches
- Very knowledgeable about causes of pollution of ocean, rivers and beaches

Base: Total Los Angeles County Residents (see base sizes above)

Questions: Q.4: Compared to most people, how knowledgeable are you about what causes pollution of the ocean, rivers and beaches?



Recall Seeing/Hearing Information – Unaided –



Base: Total Los Angeles County Residents (see base sizes above)

Questions: *Q.6: In the past few months, do you recall seeing or hearing anything about pollution of the oceans, rivers and beaches? Q.9: In the past few months, do you recall seeing or hearing anything about litter?*

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Sources of Litter Information Among Those Aware – Unaided – (Page 1 of 2)

	2005	2006	2007	2008
Sources of Litter Information				
<u>Broadcast</u>				
Television/cable TV	48%	56%	51%	49%
Radio	12%	11%	12%	16%
<u>Outdoor</u>				
Billboard	13%	16%	10%	12%
Freeway sign/LED signs	0%	0%	12%	12%
Sidewalk/storm drain stenciling	3%	7%	8%	5%
At the beach	2%	8%	11%	4%
In a park	0%	0%	0%	4%
Bus/bus shelter	1%	3%	5%	3%
<u>Print</u>				
Newspaper	17%	23%	28%	19%
Magazine	3%	8%	6%	4%
Brochure/pamphlet	2%	5%	2%	0%
School	5%	5%	8%	12%↑
<u>Word-of-Mouth</u>				
Neighborhood	0%	0%	0%	4%
Word-of-mouth	0%	0%	2%	4%
Friends/family	4%	3%	3%	3%
Child	1%	1%	1%	1%
Base: Los Angeles County Residents Aware of Litter Messages	(370)	(203)	(198)	(200)

Question: Q.11: Where have you seen or heard something about litter?

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Sources of Litter Information Among Those Aware

– Unaided –

(Page 2 of 2)

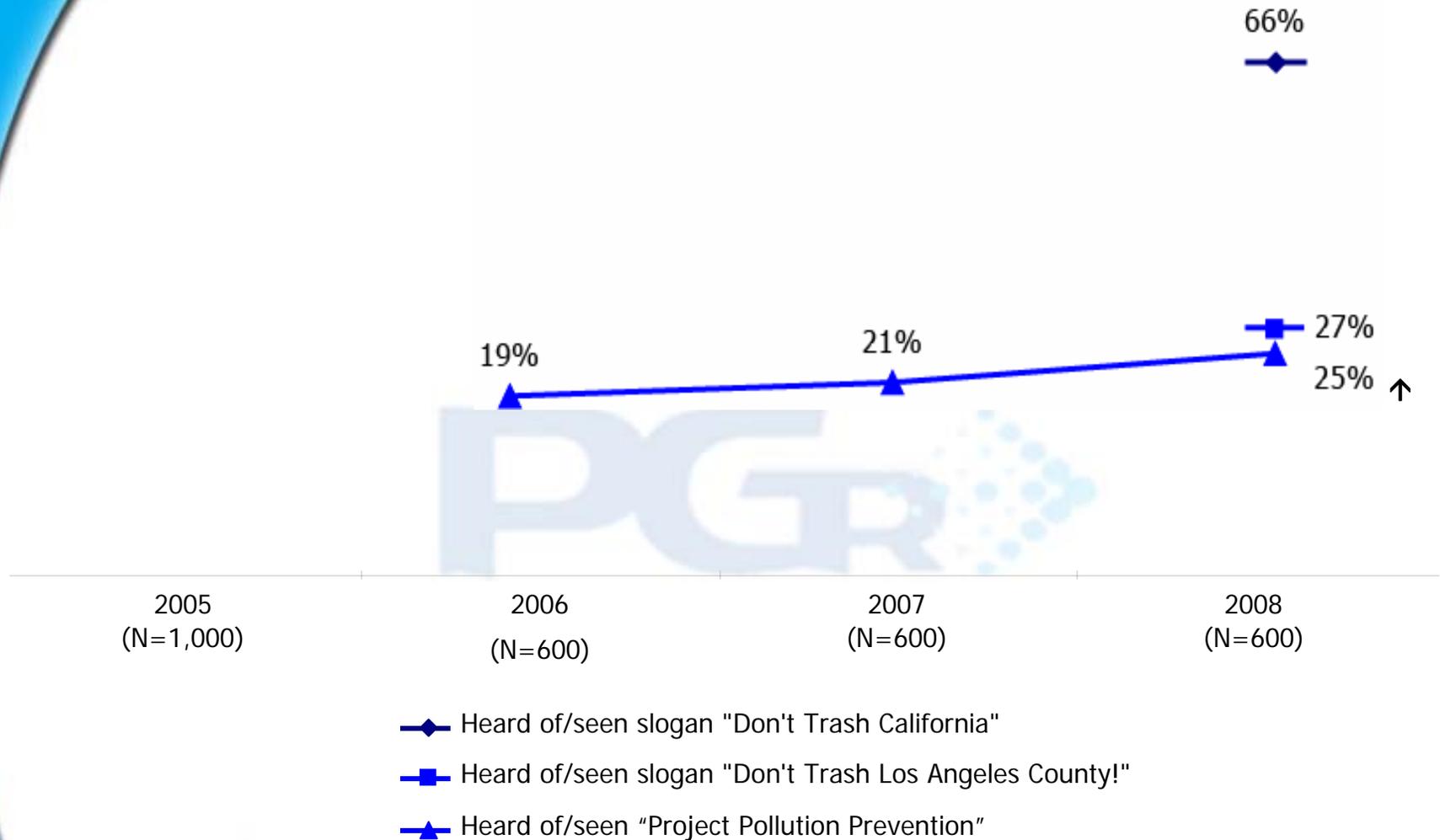
	2005	2006	2007	2008
Sources of Litter Information				
Internet	1%	2%	5%	4%
<u>Retail</u>				
In a store	0%	3%	1%	2%
Gas station	0%	1%	1%	1%
Work	5%	1%	3%	2%
Organization/foundation/charity	1%	0%	2%	2%
Movie theater	0%	2%	1%	1%
<u>Events</u>				
County fair	0%	0%	0%	1%
Meeting	0%	0%	1%	0%
Corporate-sponsored event	1%	0%	0%	0%
Baseball stadium	0%	0%	1%	0%
Base: Los Angeles County Residents Aware of Litter Messages	(370)	(203)	(198)	(200)

Sources of Litter Information Among All Residents – Aided Awareness –

	2005	2006	2007	2008
Sources of Litter Information				
On television/cable TV	38%	40%	49%	47%↑
On the radio	22%	21%	28%	34%↑
On a billboard	N/A	25%	32%	34%↑
On a freeway LED sign	N/A	N/A	N/A	32%
On a bus or bus shelter	N/A	N/A	20%	26%↑
In a newspaper	24%	22%	31%	22%
In a movie theater	N/A	N/A	21%	16%↓
On the Internet	N/A	N/A	11%	15%↑
At a baseball stadium	N/A	N/A	7%	8%
At the County fair	N/A	N/A	9%	7%
Base: Total Los Angeles County Residents	(1,000)	(600)	(600)	(600)

Question: Q.12: Do you recall seeing any advertising [SOURCE] that talks about litter getting into the street or storm drains and causing problems?

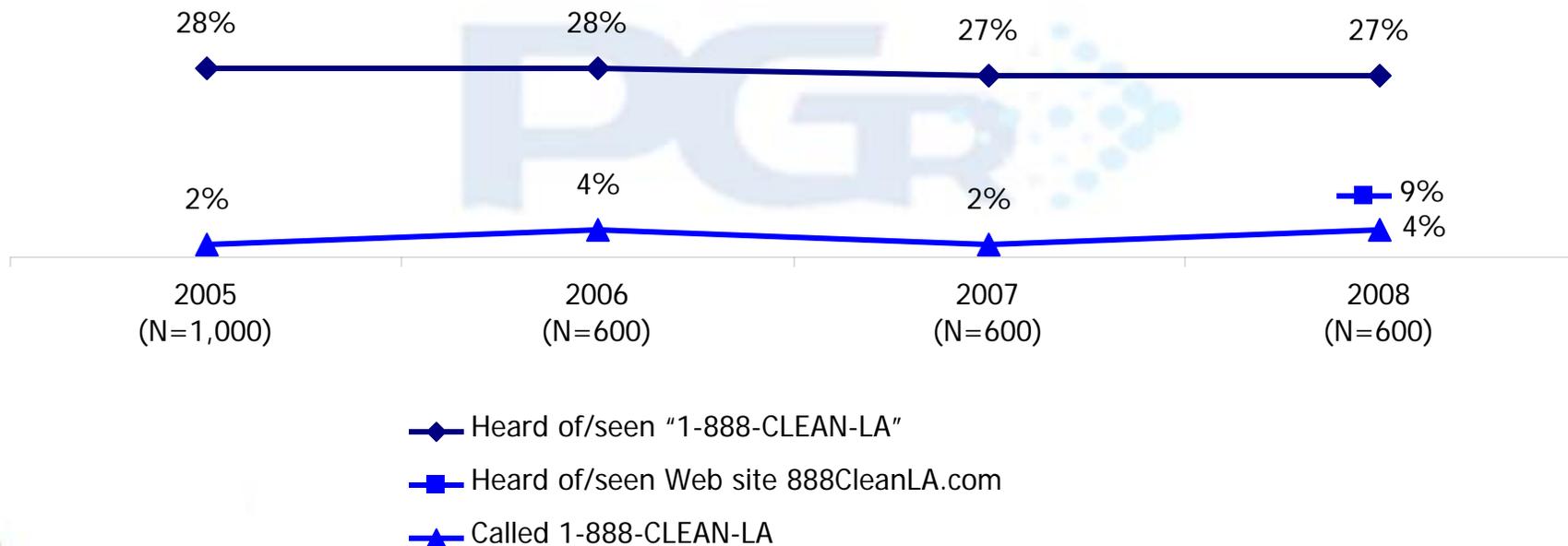
Awareness of Taglines



Base: Total Los Angeles County Residents (see base sizes above)

Questions: Q.24: Have you heard or seen the slogan "Don't Trash California"? Q.25: Have you heard or seen the slogan "Don't Trash Los Angeles County!"? Q.23: Have you heard or seen the name Project Pollution Prevention?

Awareness of Phone Numbers and Web Sites



Base: Total Los Angeles County Residents (see base sizes above)

Questions: Q.20: Have you seen or heard the phone number 1-888-CLEAN-LA? Q.22: Have you seen or heard of the Web site 888CleanLA.com? Q.21: Have you called the phone number 1-888-CLEAN-LA?

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DETAILED FINDINGS

Attitudes and Awareness

➡ Advertising Message Recall/Impact

Willingness to Change Pollution-Causing Behaviors

Behaviors Related to Stormwater Pollution

Lifestyle and Demographic Characteristics



Advertising Message Recall/Impact

- Los Angeles County residents are increasingly associating water pollution with the ocean/ bay being polluted (14%) and oil spills (9%), as well as continuing to link it with storm drain contents entering the ocean (13%), beach closures (11%) and fish or wildlife dying (9%).
- In addition to ongoing awareness of cigarette butts (15%) and cans (9%) being a problem, there is increasing awareness of trash items such as bottles (13%) and food wrappers (10%) getting into the streets, gutters or storm drains.
- Home project hazardous waste, chemicals and paint are being less often remembered.
 - There has also been a drop-off in associating the consequences of pollution of streets and storm drains with the ocean, marine life or human health problems.
- General messages are registering strongly with ad-aware residents, including *keep neighborhoods and beaches clean* (at 81%, up from 60% in 2006), *litter/pollution from the street ends up in the ocean* (up five points to 75% from 2005), *pick up after your pet* (68%, up 4 points) and *throwing trash in the street is like throwing it in your home* (59%, asked for the first time this year).
 - However, more specific ad messages such as properly disposing of cigarette butts or food wrappers have weakened since 2005.
- Those who have seen the ads strongly agree that they are thought-provoking (57%), informative (46%) and stimulate change (41%).
 - Residents are even more motivated to feel that *everyone needs to be part of the solution* (77%) and that it *is important to discourage others from polluting* (73%).

Water Pollution Message Recall – Unaided –

	2006	2007	2008
Specific Information Recalled			
<u>Ocean/Beach Pollution (Net)</u>	38%	45%	48%↑
Unsafe/contaminated beaches	11%	11%	7%
People pollute/litter our beaches	10%	6%	10%
Unhealthy to swim/harmful to people/animals	1%	2%	4%
Beach closures	13%	14%	11%
Ocean/bay is polluted	8%	15%	14%↑
Oil spills in the ocean	5%	5%	9%↑
<u>Pollution in Neighborhoods (Net)</u>	27%	24%	19%↓
Making neighborhoods unhealthy/unsafe (Subnet)	25%	22%	15%↓
Pollution is a big problem/issue	10%	6%	3%↓
Organized clean up	2%	2%	0%
Big companies pollute/dump waste	2%	2%	1%
Making neighborhoods look ugly/dirty (Subnet)	2%	2%	5%
Wouldn't trash your home	1%	0%	1%
<u>Polluting the storm drain pollutes the water/ocean (Net)</u>	17%	19%	15%
Storm drains go directly to the ocean/whatever goes in drains goes into the ocean	10%	8%	13%
Storm drain/rainwater contaminates beaches/goes to ocean	8%	12%	5%
Fish/wildlife dying	8%	7%	9%
Sewage leaks	7%	7%	8%
Trash/oil clogs storm drains	6%	3%	6%
Heal the Bay/organized beach clean up	0%	0%	5%
Don't put anything in storm drains	2%	3%	4%
Effects of global warming	0%	2%	3%
Don't know	4%	5%	7%
Base: Total Los Angeles County Residents Who Recall Seeing, Hearing or Reading About Pollution of the Ocean, Rivers and Beaches	(390)	(410)	(364)

Litter Message Recall – Unaided –

	2006	2007	2008
Specific Information Recalled			
<u>Litter in community (Net)</u>	<u>42%</u>	<u>49%</u>	<u>48%</u>
Don't litter/trash LA	18%	20%	25%↑
Litter in street/neighborhood	17%	22%	17%
Organized community cleanup	N/A	N/A	8%
Litter thrown from cars/on freeway	6%	4%	5%
Litter clogging storm drains	4%	7%	1%
<u>Environment (Net)</u>	<u>4%</u>	<u>14%</u>	<u>16%</u> ↑
Environmental problems/greenhouse effect/killing wildlife	4%	10%	9%↑
Recycle	0%	4%	8%↑
<u>Litter on the beach (Net)</u>	<u>11%</u>	<u>16%</u>	<u>12%</u>
Litter on beaches/in ocean	5%	12%	8%
Organized beach cleanups	4%	5%	4%
No smoking on beaches	1%	1%	1%
Beach closures	2%	1%	0%
<u>Advertising (Net)</u>	<u>5%</u>	<u>3%</u>	<u>8%</u>
People throwing trash in house/living room	5%	3%	4%
Dumping old furniture in environment/desert	1%	1%	3%
"Don't trash L.A."	N/A	N/A	2%
Littering is illegal	N/A	N/A	5%
Storm drains go directly to ocean	N/A	N/A	5%
Base: Recall Seeing, Hearing or Reading About Litter	(203)	(198)	(200)

Question: Q.10: What information have you seen, heard or read about litter?

Specific Types of Litter/Pollution Remembered – Unaided –

	2001	2005	2006	2007	2008
Pollutants Causing Problems					
<u>Litter/Trash</u>					
Litter					
Litter/trash	37%	36%	33%	29%	37%
Cigarette butts	14%	17%	16%	15%	15%
Food wrappers	3%	11%	7%	8%	10%↑
Beverage Containers					
Bottles	8%	9%	13%	14%	13%↑
Cans	8%	8%	13%	12%	9%
Six-pack rings/plastics	5%	4%	4%	6%	8%
Cups/coffee cups	5%	6%	5%	7%	7%
Motor oil	46%	36%	24%	22%	25%↓
<u>Hazardous Waste</u>					
Chemicals	12%	11%	10%	8%	7%↓
Hazardous waste	7%	6%	8%	4%	4%
Harmful liquids	6%	6%	5%	3%	4%
Paint	13%	5%	4%	2%	3%↓
Poison	1%	2%	2%	1%	1%
<u>Yard Waste</u>					
Pesticides	10%	4%	3%	4%	4%↓
Fertilizer	6%	2%	2%	2%	3%
Leaves	5%	4%	4%	4%	3%
Grass/lawn clippings	0%	0%	0%	1%	1%
Dog waste/droppings	15%	9%	5%	5%	4%↓
Recyclable materials	5%	8%	3%	9%	3%
Don't know/don't remember	15%	15%	25%	24%	22%↑
Base: Residents Who Recall Advertising About Things Getting into Streets/Storm Drains and Causing Problems					
	(404)	(509)	(339)	(429)	(446)

Question: Q.13: What things do you recall the commercials or ads mentioning that are getting into the street, gutters or storm drains and causing problems?

Recall of Consequences of Storm Drain Pollution – Unaided –

	2001	2005	2006	2007	2008
Consequences of Litter/Pollution					
<u>Ocean</u>					
Polluting the ocean	45%	39%	34%	33%	35%↓
Killing/threatening marine life	29%	21%	13%	14%	18%↓
Closing beaches	6%	10%	12%	14%	6%
Poisoning beaches	13%	15%	11%	9%	6%↓
<u>Storm Drains/Waterways</u>					
Clogging gutters/storm drains	11%	13%	16%	13%	15%↑
Flooding	5%	8%	7%	3%	2%
<u>Neighborhoods</u>					
Dirtying/trashing California	0%	7%	8%	5%	6%
Spoiling/poisoning/contaminating neighborhoods	6%	5%	4%	5%	5%
Making neighborhoods ugly/dirty	1%	4%	2%	2%	1%
<u>Health</u>					
Health problems	11%	11%	12%	4%	4%↓
Contaminating water supplies	0%	0%	0%	0%	2%
Spreading disease	3%	4%	3%	2%	1%
Kids swim in pollution	2%	1%	2%	3%	1%
Altering ecosystem	0%	0%	1%	5%	6%
Foul odors/smells	1%	1%	1%	2%	1%
Illegal/breaking the law	0%	0%	1%	0%	0%
Don't know/don't remember	23%	19%	23%	29%	27%↑
Base: Residents Who Recall Advertising About Things Getting into Streets/Storm Drains and Causing Problems					
	(404)	(509)	(339)	(429)	(446)

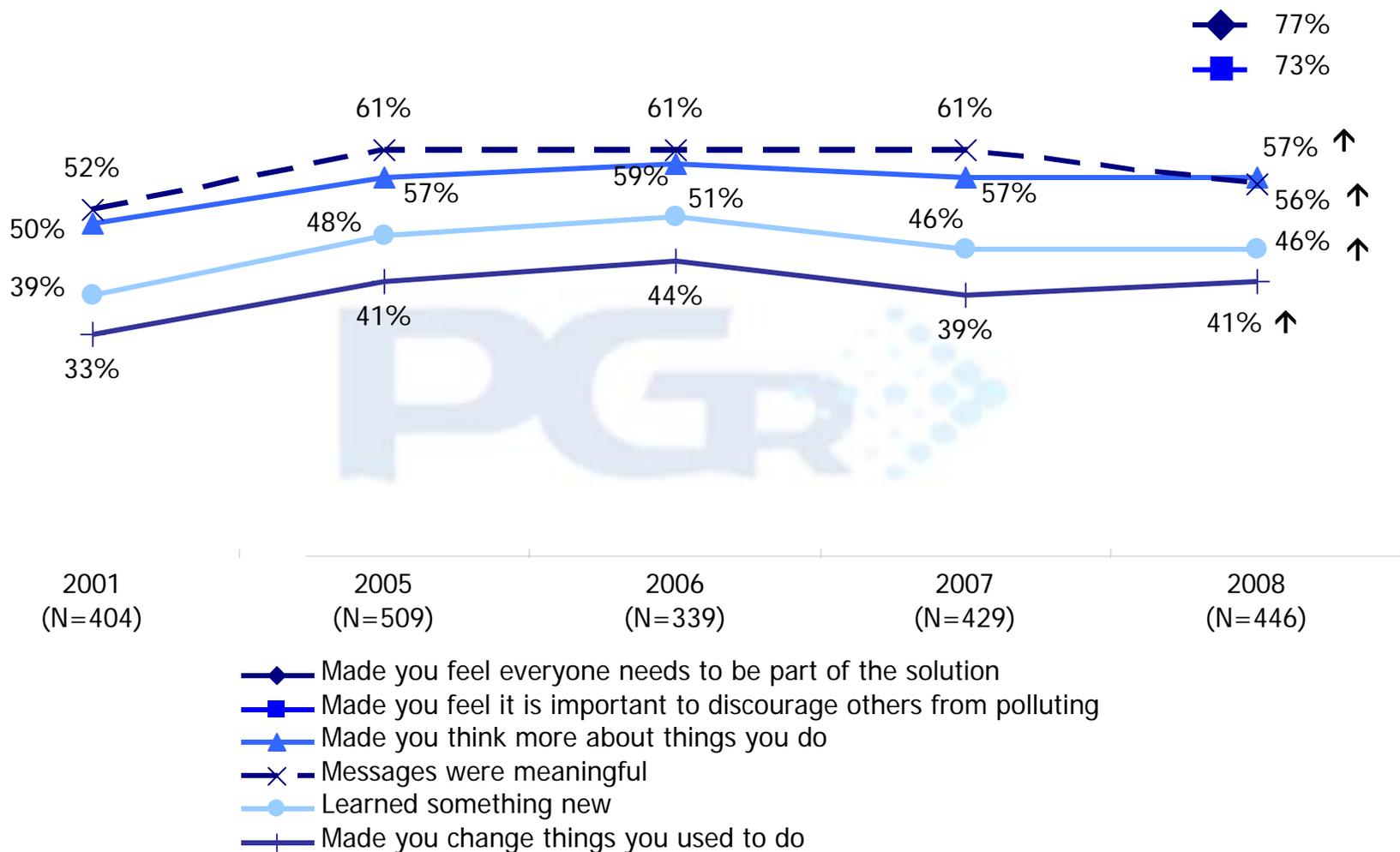
Question: Q.14: What kinds of problems did the ads say are being caused by the things that are getting into the street, gutters or storm drains?

Recall of Specific Advertising Messages – Aided –

	2005	2006	2007	2008
Recall of Specific Advertising Messages				
Keep our neighborhoods and beaches clean	N/A	60%	70%	81%↑
Litter or pollution in the street ends up in the ocean/affects the beach	70%	78%	66%	75%↑
Pick up after your pet	64%	58%	60%	68%↑
Throwing trash in L.A. County's streets is like throwing trash in your own home	N/A	N/A	N/A	59%
Throw trash in cans, not in the street	N/A	45%	50%	53%↑
Dispose of cigarette butts properly	55%	48%	44%	49%↓
Dispose of fast food wrappers properly	53%	49%	37%	45%↓
Two guys going into houses and throwing trash	N/A	44%	30%	35%↓
Billboards showing trash in the street or gutter	N/A	26%	25%	32%↑
The statement, "If you wouldn't put it in your pool, don't put it in the street"	N/A	N/A	N/A	24%
Base: Residents Who Recall Advertising About Things Getting into Streets/Storm Drains and Causing Problems				
	(509)	(339)	(429)	(446)

Question: Q.15: Do you recall the ads mentioning any of the following messages?

Persuasion – Agree Strongly –



Base: Residents Who Recall Advertising About Things Getting into Street/Storm Drains and Causing Problems (see base sizes above)
 Question: Q.16: How much do you agree with this statement?

Attitudes About Litter

	2007	2008
<u>Strongly Agree</u>		
Everyone who changes the oil in a vehicle should take the used oil to a recycling center	93%	91%
It is always wrong to litter	91%	90%
It is wrong for dog owners to walk their dogs and not pick up after them	91%	89%
Throwing or dumping anything into gutters or storm drains is always harmful to the waterways	89%	86%
Crushing a cigarette out on the street or sidewalk and leaving the butt there is littering	88%	86%
Even a small amount of litter is harmful to the environment	76%	73%
Not repairing a car that is leaking any type of fluid makes the owner of that vehicle a polluter	71%	73%
Everyone should sweep up leaves and debris from the street and sidewalk in front of their property	73%	72%
People should not use chemicals outdoors, including fertilizer, pesticides and detergent	44%	49%↑
Base: Total Los Angeles County Residents	(600)	(600)

Question: Q.27: How much do you agree or disagree with each of the following statements?

DETAILED FINDINGS

Attitudes and Awareness

Advertising Message Recall/Impact

➔ **Willingness to Change Pollution-Causing Behaviors**

Behaviors Related to Stormwater Pollution

Lifestyle and Demographic Characteristics

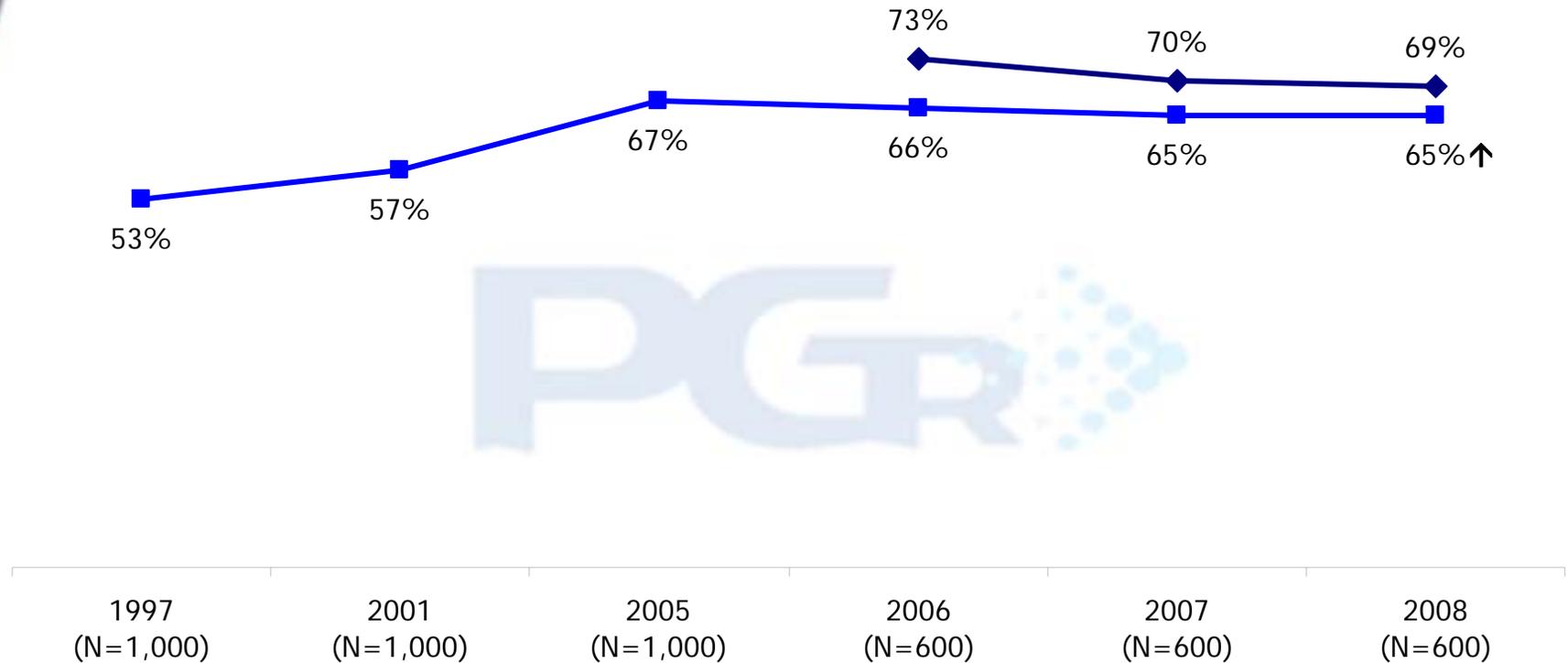


Willingness to Change Pollution-Causing Behaviors

- Two-thirds of Los Angeles County residents are strongly committed to changing pollution-linked behaviors associated with litter (69%) or water pollution (65%) as they learn of those behaviors.
- While at least nine-out-of-ten residents are willing to change many specific littering behaviors and reduce their use of pesticides and fertilizer, fewer are ready to *completely* eliminate pesticide (84%) and fertilizer (75%) application.
- Support has held steady for the potential public programs involving awareness of the effects of litter, polluter reporting, littering fines and community service assignment.



Willingness To Change Water Pollution-Causing and Littering Behaviors – Definitely Would Change –



- ◆ Learned something that could contribute to problems associated with litter
- Learned something that could contribute to pollution of ocean, rivers and beaches

Questions: Q.8: If you learned that something you were doing could contribute to problems associated with litter, how willing would you be to change your behavior? Would you say you...? Q.5: If you learned that something you were doing could contribute to pollution of the ocean, rivers and beaches, how willing would you be to change your behavior? Would you say you...?

Pollution-Causing Behaviors Willing to Change

	2005	2006	2007	2008
Would Change Behavior				
Carry all of your trash/papers to a trash can for disposal	97% (985)	98% (578)	97% (582)	99% (585)
Pick up dogs droppings every time	95% (612)	95% (363)	94% (378)	97% (441)
Dispose of cigarette butts in an ashtray/trash can	95% (626)	94% (357)	93% (369)	96% (441)
Prevent water from running off your lawn	92% (873)	88% (500)	91% (512)	93% (546)
Sweep up leaves/dirt/debris from gutters in front of your house/apartment	91% (922)	88% (551)	89% (545)	91% (549)
Cut down on pesticides outdoors	90% (770)	85% (414)	85% (428)	91% (476)
Cut down on fertilizer used	88% (729)	86% (403)	86% (414)	91% (459)
Stop using pesticides outdoors	82% (757)	77% (434)	77% (423)	84% (478)
Stop using fertilizer	70% (747)	67% (415)	67% (433)	75%↑ (472)
Base: Los Angeles County Residents for Whom the Behavior Applies				

Question: Q.17: Which of the following would you be willing to do if you learned that there was a good reason for doing so? Would you be willing to...?

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Support for Public Programs – Strongly/Moderately Support –

	2006	2007	2008
Strongly/Moderately Support			
Awareness programs to help people understand that litter and debris can flow directly to the local beaches where children swim	91%	90%	91%
Court-ordered community service for littering	82%	83%	82%
The public being made aware of a clear and effective method of reporting polluters, such as an anonymous pollution prevention hotline	N/A	N/A	78%
Fines of up to \$1,000 per littering occurrence being routinely enforced	69%	67%	71%
Base: Total Los Angeles County Residents	(600)	(600)	(600)

Question: *Q.19: How do you feel about each of the following potential actions designed to help change people's behaviors or habits that might contribute to pollution or littering? How do you feel about...?*

DETAILED FINDINGS

Attitudes and Awareness
Advertising Message Recall/Impact
Willingness to Change Pollution-Causing Behaviors
➔ Behaviors Related to Stormwater Pollution
Lifestyle and Demographic Characteristics



Behaviors Related to Stormwater Pollution

- Resident engagement in the primary littering behaviors remains below 1997 levels, but the factors of directional increases over the past two years and County population growth result in a year-to-year litter increase.
- The potentially negative home and garden-related behaviors that had been trending upward in 2006 and 2007 have dropped back to previous low levels.
 - This includes lawn watering running into the street, driveway/sidewalk washing, pesticide spraying and washing off paintbrushes outdoors.



Prevalence of Polluting/Potentially Polluting Behaviors

	1997	2001	2005	2006	2007	2008
Individual Pollution-Causing Behaviors in Past Month						
Drop a cigarette butt on the ground	16%	13%	10%	8%	8%	11%↓
Drop litter on the ground or out a car window	13%	12%	8%	7%	8%	10%↓
Allow paper or trash to blow into the street	10%	12%	8%	9%	9%	10%
Park a vehicle that is leaking oil or fluids on a street	N/A	N/A	4%	4%	5%	5%
Throw fast food wrappers in the street or gutters	N/A	N/A	3%	3%	4%	4%
Throw something in the gutter or down a storm drain	5%	4%	3%	3%	3%	4%
Empty the car ashtray into the street	3%	1%	1%	1%	2%	1%
Dump used oil in the gutter or storm drain	N/A	N/A	N/A	1%	1%	1%
Household Pollution-Causing Behaviors in Past Month						
Water the lawn or garden and let the water run into the street	13%	13%	12%	16%	17%	12%
Hose leaves or dirt off a driveway or sidewalk into the street	12%	14%	12%	15%	14%	11%
Spray the garden or lawn with pesticides	5%	7%	6%	7%	9%	7%
Wash off paint brushes under an outdoor faucet	6%	4%	6%	5%	9%	6%
Walk a dog without picking up the droppings	4%	3%	2%	3%	4%	5%
Use too much manure or fertilizer	1%	1%	2%	2%	2%	2%
Base: Total Los Angeles County Residents	(1,000)	(1,000)	(1,000)	(600)	(600)	(600)
Average number/past month						
Cigarette butts dropped on ground				32	29	31
Drop litter on the ground or out a car window				N/A	N/A	7
Dog droppings left				2	5	5

Questions: Q.3a: Which of these things have you personally done in the past month? Q.3b: In the past month, how many cigarette butts did you drop on the ground? Q.3d: In the past month, how many times did you drop litter on the ground or out a car window? Q.3c: In the past month, how many times have you left dog droppings when walking a dog?

Pollution Volumetrics – Occurrences Per Month

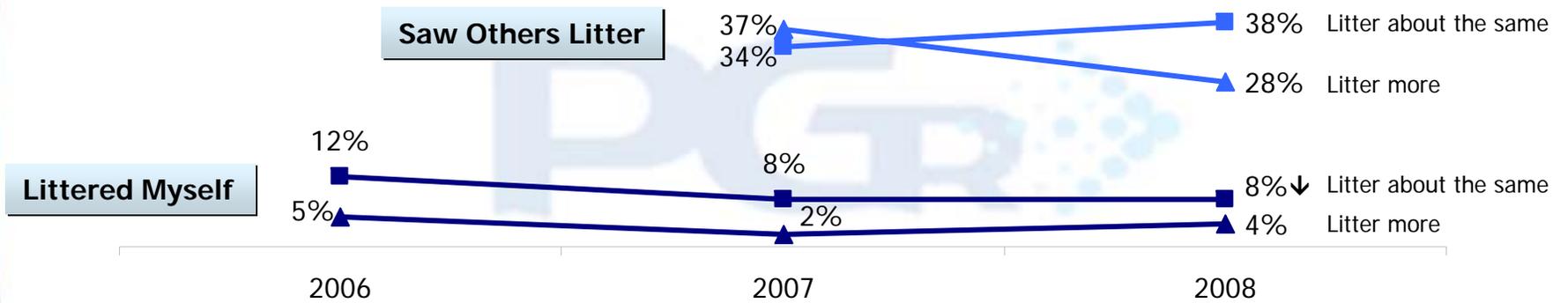
	Reported Number of Occurrences ¹ (per month)	2008
Drop a cigarette butt on the ground	30.7	25,814,262
Drop litter on the ground or out a car window	7.3	5,962,866
Allow paper or trash to blow into the street		784,798
Park a vehicle that is leaking oil or fluids on the street		424,432
Throw fast food wrappers in the street or gutters		336,342
Throw something in the gutter or down a storm drain		280,285
Empty a car ashtray into the street		80,081
Dump used oil in the gutter or storm drain		80,081
Base: LA County Population 16+²		
Water the lawn or garden and let the water run into the street		408,044
Hose leaves or dirt off a driveway or sidewalk into the street		376,656
Spray the garden or lawn with pesticides		254,592
Wash off paint brushes under an outdoor faucet		198,791
Walk a dog without picking up the droppings	4.5	737,619
Use too much manure or fertilizer		52,313
Base: LA County Households³		

¹All estimates assume one occurrence per month except where derived from empirical data as noted.

²Calculations for individuals based on 8,008,147 people aged 16 and older in L.A. County in 2008.

³Calculations for households based on 3,487,558 households in L.A. County in 2008.

Changed Littering Behavior in the Past Five Years



Base: Total Los Angeles County Residents 2006/2007/2008 (N=600/600/600)

Questions: Q. 18a: Compared to five years ago, do you litter [more, about the same, less or didn't litter then and don't now]?

Q. 18b: Compared to five years ago, do you see other people littering [more, about the same or less]?

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DETAILED FINDINGS

Attitudes and Awareness
Advertising Message Recall/Impact
Willingness to Change Pollution-Causing Behaviors
Behaviors Related to Stormwater Pollution
➔ Lifestyle and Demographic Characteristics



Lifestyle and Demographic Characteristics

- Continuing the upward trend of the past seven years, five-out-of-six Los Angeles County residents (85%) now have Internet access, with increases both at home and at the office versus 2001.
- While there is less run-off from lawns in 2008 versus the past two years, the presence of lawns, gardens and sprinkler systems has not diminished, which indicates that residents are engaging in more responsible behavior.
 - The presence of cars, trucks and motorcycles is the same as in previous years, but fewer residents are currently changing their oil or draining their radiators, thus limiting the potential for pollution from these do-it-yourself activities.



Internet Access

	2001	2005	2006	2007	2008
Have Internet Access (Net)	75%	77%	80%	82%	85%↑
At home	55%	60%	66%	73%	75%↑
At work	39%	41%	49%	49%	44%↑
At school	26%	22%	26%	23%	23%
Somewhere else	31%	31%	33%	35%	18%↓
Do not have Internet access	25%	23%	20%	18%	15%↓
Base: Total Los Angeles County Residents	(1,000)	(1,000)	(600)	(600)	(600)

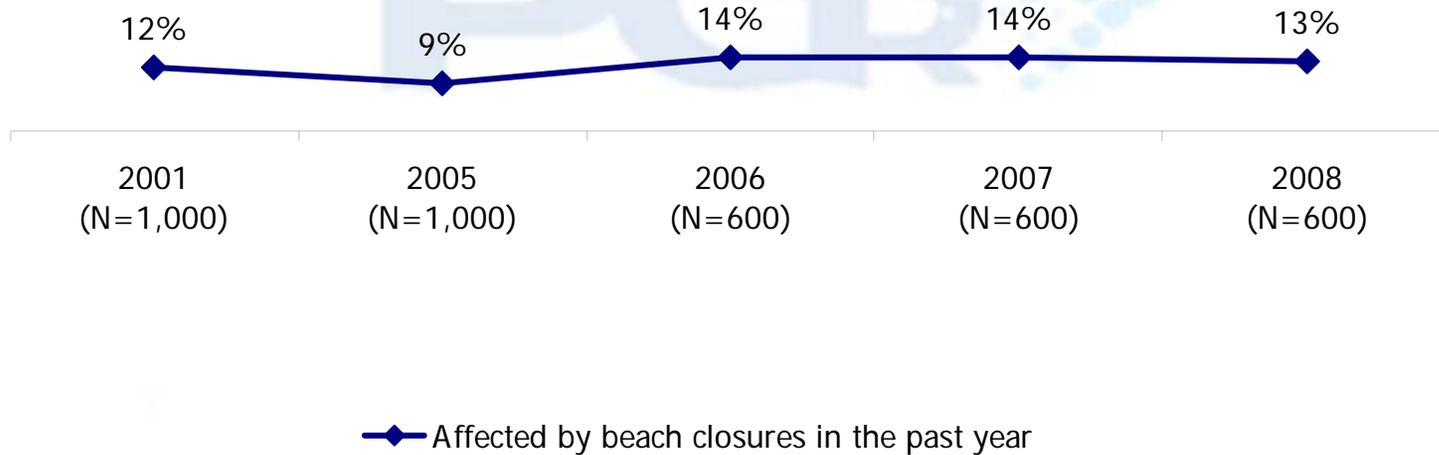
Question: Q.28: Do you have access to the Internet?

Incidence of Potential Pollutant Ownership

	1997	2001	2005	2006	2007	2008
Items in Household						
Car, truck or motorcycle	92%	89%	90%	91%	91%	94%
Lawn	N/A	56%	51%	60%	60%	60%↑
Power tools	N/A	57%	53%	63%	60%	57%
Flower garden	49%	51%	51%	54%	55%	54%↑
Automatic watering or sprinkler system	N/A	N/A	41%	43%	45%	46%↑
Dog	34%	30%	31%	33%	36%	36%
Swimming pool, spa or above ground pool	N/A	N/A	N/A	23%	21%	27%↑
Fishing equipment	28%	26%	20%	23%	24%	26%
Vegetable garden	20%	19%	17%	18%	20%	20%
Water skis or surfboard/boogie board	9%	9%	13%	14%	18%	17%↑
Boat or personal watercraft	7%	6%	5%	7%	6%	6%
Base: Total Los Angeles County Residents	(1,000)	(1,000)	(1,000)	(600)	(600)	(600)
Maintenance and Repairs Done Personally						
Wash a vehicle	73%	73%	63%	60%	58%	65%↓
Change the oil	37%	35%	24%	25%	24%	26%↓
Drain the radiator	23%	20%	13%	5%	7%	6%↓
Change or replace the oil filter	N/A	N/A	N/A	16%	17%	18%
None	N/A	26%	34%	35%	38%	31%↑
Base: Total Los Angeles County Residents Who Own a Car, Truck or Motorcycle	(919)	(894)	(902)	(546)	(548)	(563)

Questions: Q.2a: Which of the following do you, or does someone in your household, have? Q.2b: Which of the following maintenance and repairs do you personally do on the cars, trucks and motorcycles in your household as opposed to having someone else do it for you?

Impact of Beach Closures



Question: Q.26: Would you say that in the past year you have or have not been personally impacted by a beach closure?

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Demographic Characteristics

	1997	2001	2005	2006	2007	2008
Gender						
Male	49%	52%	46%	48%	48%	47%
Female	51%	48%	54%	52%	52%	53%
Age						
16-18	5%	8%	6%	6%	7%	10%
19-24	14%	14%	9%	7%	7%	12%
25-34	22%	21%	15%	15%	14%	16%
35-44	21%	22%	22%	22%	16%	18%
45-54	14%	14%	17%	17%	21%	19%
55-64	11%	9%	15%	17%	15%	13%
65+	13%	12%	16%	17%	20%	14%
Average (mean) age (years)	38.8	38.4	44.3	45.7	47.9	42.7
Education						
Grade school or less	7%	5%	9%	5%	5%	6%
Some high school	9%	15%	12%	13%	10%	14%
High school graduate/GED	25%	24%	20%	21%	24%	19%
Trade or technical school	3%	2%	3%	3%	2%	2%
Some college	28%	23%	23%	21%	22%	21%
College graduate	19%	19%	22%	24%	24%	27%
Some post graduate work	3%	3%	3%	4%	4%	3%
Post graduate degree	7%	8%	8%	10%	9%	9%
Base: Total Los Angeles County Residents	(1,000)	(1,000)	(1,000)	(600)	(600)	(600)

Questions: Q.A: What is your gender? Q.B: Which of the following categories includes your age? Q.34: What is the last grade of formal education you completed?

Demographic Characteristics

	1997	2001	2005	2006	2007	2008
Marital Status						
Married	46%	39%	51%	50%	52%	48%
Single	34%	41%	32%	33%	31%	37%
Divorced	10%	10%	8%	8%	7%	8%
Widowed	7%	6%	6%	6%	7%	4%
Separated	3%	3%	3%	3%	3%	2%
Number of Children Under 18 in Household						
None	53%	56%	43%	49%	50%	45%
One	17%	17%	22%	20%	18%	19%
Two	19%	16%	21%	19%	20%	21%
Three	6%	8%	8%	9%	10%	11%
Four or more	4%	4%	6%	3%	3%	4%
Number of Household Members						
One	15%	18%	16%	18%	19%	17%
Two	27%	26%	23%	28%	29%	24%
Three	18%	18%	20%	18%	16%	21%
Four	20%	18%	20%	18%	21%	18%
Five	11%	11%	11%	12%	8%	12%
Six or more	8%	9%	10%	6%	7%	9%
Mean	3.0	3.0	3.2	3.0	2.9	3.1
Base: Total Los Angeles County Residents (1,000) (1,000) (1,000) (600) (600) (600)						

Questions: Q.30: Are you...? Q.32: And how many of those people are under the age of 18? Q.31: Including yourself, how many people are currently living in your household?

Demographic Characteristics

	1997	2001	2005	2006	2007	2008
Residence Type						
House	64%	57%	61%	64%	65%	63%
Apartment	26%	33%	31%	24%	20%	24%
Condo	5%	4%	4%	6%	6%	6%
Townhouse	3%	3%	3%	3%	4%	2%
Cooperative	0%	0%	0%	0%	0%	0%
Other	2%	3%	2%	3%	4%	4%
Annual Household Income*						
Less than \$40,000	50%	52%	50%	42%	38%	43%
\$40,000 to under \$60,000	24%	21%	16%	17%	17%	15%
\$60,000 to under \$80,000	14%	13%	11%	12%	12%	14%
\$80,000 or more	12%	14%	23%	29%	33%	28%
Median (\$'000)	\$38.6	\$38.7	\$39.8	\$49.7	\$59.4	\$46.8
Employment Status						
Employed full-time	50%	51%	51%	49%	52%	47%
Employed part-time	15%	15%	14%	17%	13%	15%
Retired	15%	13%	17%	18%	20%	14%
Not employed	19%	21%	18%	16%	10%	12%
Base: Total Los Angeles County Residents	(1,000)	(1,000)	(1,000)	(600)	(600)	(600)

*Base: Those 19 years of age or older (N=767/801/743/450/419/455)

Questions: Q.29: Is your residence a...? Q.35: Is your total annual household income before taxes...?

Q.33: Are you currently...?

Demographic Characteristics

	1997	2001	2005	2006	2007	2008
Ethnicity						
White/Anglo/Caucasian	45%	36%	38%	45%	46%	40%
Hispanic/Latino/Spanish origin	30%	37%	44%	34%	34%	43%
Black/African American	10%	13%	9%	10%	10%	10%
Asian/Oriental/Pacific Islander	11%	9%	5%	8%	7%	8%
Native American/Indian	1%	1%	1%	0%	1%	0%
Other/mixed race	2%	1%	3%	3%	2%	3%
Length of Time Lived in Los Angeles County						
6 months to less than 5 years	6%	10%	7%	8%	3%	7%
5 years to less than 15 years	21%	19%	18%	16%	12%	12%
<u>15 years or longer (Net)</u>	<u>73%</u>	<u>71%</u>	<u>75%</u>	<u>75%</u>	<u>85%</u>	<u>81%</u>
15 years to less than 20 years	N/A	14%	14%	14%	14%	16%
20 years to less than 25 years	N/A	16%	14%	12%	13%	14%
25 years to less than 30 years	N/A	7%	6%	8%	8%	9%
30 years or more	N/A	36%	41%	42%	51%	42%
Average (mean) length of time lived in Los Angeles (years)	N/A	25.0	27.2	27.5	31.6	28.5
Base: Total Los Angeles County Residents	(1,000)	(1,000)	(1,000)	(600)	(600)	(600)

Questions: Q.C: How would you describe your race or ethnicity? Q.F: How long have you lived in Los Angeles County?

Appendix



Concern About Issues Facing Los Angeles County – Very Concerned –

Issues	2008
Pollution of the water sources that provide our drinking water	70%
Unemployment	65%
Crime	65%
Traffic congestion	62%
Pollution of the ocean, rivers and beaches	61%
Quality of the public schools	60%
Air pollution or smog	59%
Litter	46%
Terrorism	42%
Beach closures	29%
Race relations	29%
Base: Total Los Angeles County Residents	(600)

Base: Total Los Angeles County Residents

Question: *Q.1: How concerned are you about each of the following issues?*

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