

**Exhibit 6.II**

**Orange County Stormwater Public Education  
Program Recommendations**

**February 2002**



# Orange County Stormwater Public Education

- Program Recommendations -



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# Introduction

This plan and its recommendations for the Orange County Stormwater Public Education Program are designed to achieve the following objectives:

- 1. Meet the goals of the current contract scope of work:**  
The plan is the primary deliverable under the current stormwater public education contract. It satisfies Tasks 4,5, 6 and 9 of the scope of work, which includes identifying program goals, target audiences and key messages, creating program strategies and a timeline and developing a model educational program.
- 2. Meet NPDES permit requirements:**  
The plan provides recommendations that meet NPDES (National Pollution Discharge Elimination System) permit requirements for public education whenever possible and practical, and provides a rationale for recommendations that differ from permit requirements but have equal or greater potential to achieve public education goals.
- 3. Provide a roadmap for the next fiscal year and the current permit period:**  
The plan provides specific recommendations that can be implemented in the next fiscal year, beginning July 1, 2002, and includes recommendations for additional elements that, when combined, provide a roadmap for the next five years under the current NPDES permits.
- 4. Follow up on the recommendations from previous planning:**  
To maintain a continuum in program development, the plan provides a link to previous planning efforts and the recommendations made in the report commissioned by the County from its previous contractor, PS Enterprises. The plan provides specific recommendations based on general recommendations in the report, and a rationale for recommendations that differ from those in the report.
- 5. Position the Countywide program for long term success:**  
The plan is designed to position the Orange County Stormwater Public Education Program for the long term, with durable program elements that provide lasting impact. It is designed to not only impact immediate awareness of stormwater pollution, but to lay a foundation that, over time, can help establish an environmental ethic in County residents that will prevent stormwater pollution.

By employing proven strategies, supported by the recently completed public awareness survey, this plan is designed to move the Orange County Stormwater Public Education Program from a scattershot approach of sporadic, disconnected efforts, to a consistent, comprehensive and coordinated approach that increases the odds of achieving program objectives.

# Program Objectives

The ultimate goal of Orange County's stormwater pollution prevention efforts is to reduce the amount of pollutants flowing through the storm drain system into local waterways. The role of the public education program in meeting this goal is to achieve the following general objectives:

1. **Increase awareness of stormwater pollution:**  
Increase awareness among targeted segments of the residential and commercial population that are engaged in polluting behaviors of the causes, relevant impacts of and specific solutions to stormwater pollution.
2. **Motivate changes in pollution-causing behaviors:**  
Motivate targeted segments of the residential and commercial population that are engaged in behaviors that contribute to stormwater pollution to change their behaviors and adopt positive alternatives.
3. **Provide direction to and facilitate the involvement of co-permittees:**  
Serve as lead agency under the NPDES permits by providing co-permittee cities and watershed groups with strategic direction and facilitate their involvement in public education.

# Public Awareness Survey

The current contract scope of work calls for the development and implementation of a stormwater public awareness survey (Task 3). A survey was conducted in October, 2001 with two primary goals:

1. **Provide a baseline measure:**  
Provide a baseline measure of residents' awareness, attitudes, practices and habits related to stormwater pollution, against which future outreach efforts can be measured.
2. **Provide an additional planning tool:**  
Provide an additional program development tool, for identifying target audiences and key messages, developing strategies and confirming underlying assumptions.

The survey results were presented in January, 2002. The full report is included as an attachment, in the Appendix. Key points from the report's executive summary include:

- **Positive starting points for a stormwater campaign:**  
Among Orange County residents, there is a reasonably strong foundation of public concern about water pollution, some knowledge of pollution related issues and a willingness to change behaviors, all of which are positive starting points from which to build a successful social change campaign.
- **Benefit from Los Angeles County campaign:**  
Orange County residents appear to have benefited from the Los Angeles County stormwater public education campaign, with messages breaking through to them at fairly high levels.
- **Similarities with Los Angeles County residents:**  
Water polluting behaviors among Orange County residents are nearly identical in their patterns to those of Los Angeles County residents.
- **Difficulty of anti-litter messages:**  
Residents are more concerned about water pollution than litter or trash, making it difficult for anti-litter messages to capture their interest, unless the messages include compelling information that gives residents a reason to feel concerned.
- **Opportunity to make a difference with public education:**  
An opportunity appears to exist to positively impact residents' understanding of the relationship between their behavior, runoff and ecological damage.

# Public Awareness Survey

## Summary of Survey Findings

### Attitudes and Awareness:

- In the face of major national and international economic and political events, including terrorism and economic uncertainty, residents still rank pollution of the ocean, rivers and lakes as an issue of concern.
- Forty-eight percent (48%) of residents report being very concerned about water pollution, higher than their concern about traffic, smog, energy or crime.
- Coastal residents are more concerned about pollution of the ocean, rivers and lakes than their inland counterparts (66% versus 45%).
- A significantly higher percentage of Orange County residents report being aware of water pollution messages than residents in Los Angeles County (69% versus 58%).
- Seventy-five percent (75%) of residents report being somewhat or very interested in learning about water pollution.

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### Advertising and Impact:

- Messages addressing pollution's affect on the ocean were reported as being more memorable (48% unaided recall) than those addressing affects on marine life (24%).
- Orange County and Los Angeles County residents are fairly consistent in their recollection of most key pollutants. Residents from both counties are most likely to recall motor oil, litter, pesticides and dog droppings as pollutants.

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### Behaviors Related to Water Pollution:

- Water polluting behaviors among Orange County residents are nearly identical in their patterns to those among Los Angeles County residents.
- Over-watering lawns and hosing leaves or dirt into the street were reported as the most frequent stormwater related behaviors among residents (14%), followed by littering (11%) and dropping cigarette butts on the ground (11%).
- Over half (51%) of residents report being willing to change behavior that contributes to pollution of the ocean, rivers and lakes.

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### Lifestyle and Media Characteristics:

- Residents are as likely as those in Los Angeles County to have visited the beach in the past year (67%) and are significantly more likely to have been impacted by beach closures (20% versus 12%).
- A higher percentage of residents obtain water pollution information from television (68% versus 48%) and newspaper (66% versus 23%) than Los Angeles residents.

# Target Audiences & Key Messages

## Strategy

Target residential and commercial audiences based on their contribution to stormwater pollution. This recommendation follows the logic that identifying individual stormwater pollutants leads to identifying specific behaviors associated with those pollutants, which, in turn, leads to identifying specific target audiences that are engaged in those behaviors.

## Rationale

This is a fundamental strategy of the Los Angeles County stormwater public education program, which shares similarities with Orange County. Following this strategy, and using the Los Angeles County Segmentation Study as a guide for identifying and understanding the demographic and psychographic profiles of residential target audiences offers several advantages. As the public awareness survey indicates:

Water polluting behaviors among Orange County residents are nearly identical in their patterns to those among Los Angeles County residents. Because pollution-causing behavior is consistent between these somewhat varied socioeconomic and demographic regions, a public education campaign for Orange County may be able to rely on proven messages [targeting similar audiences] developed in the Los Angeles campaign (p. 32)

While studies to conclusively identify the causes of Orange County's stormwater pollution continue, pollutants such as litter, cigarette butts, dog waste and the dumping of hazardous materials into the storm drain system are generally accepted to be contributing factors. Consistent with the recommended strategy, it directs program resources to those pollutants and behaviors that contribute significantly to stormwater pollution and are likely to be affected by public education.

The recommended list of target audiences is not all inclusive, particularly the commercial segment. Water quality data can help identify broad types of pollutants that contribute the most to pollution, and from this, additional businesses and industries could be identified and outreach activities developed. The industrial and commercial inspection program can also help identify types of businesses that are the most problematic—those not implementing appropriate best management practices—and target geographic areas that may contribute disproportionately to stormwater pollution.

# Target Audiences & Key Messages

## Residential Target Audiences:

Pollutant:	Behavior:	Target Audience:	Key Message:
Cigarette butts	Smoking	Smokers who drop their butts on the ground Adults 18+	Use an ashtray or trash can, instead of tossing your cigarette butt on the ground or out of your car
Dog waste	Walking a dog	Dog owners who leave their dog's droppings Adults 25-64, Neat Neighbors Men 18-24, Rubbish Rebels	Pick up after your dog, instead of leaving its droppings on the ground, in the gutter or in a catch basin
Fertilizer	Lawn care	People who use fertilizer Adults 25-64, Neat Neighbors (homeowners)	Use sparingly, avoid using near curbs and driveways and don't apply before it rains
Paint, chemicals	Home improvement	Do-it-yourselfers who contribute to pollution Adults 25-54, Neat Neighbors Men 35-64, Fix It Foul Ups	Don't wash, rinse or empty brushes or containers in the street; take unwanted materials to HHW site or event
Pesticide	Gardening, lawn care	People who use pesticides Adults 25-64, Neat Neighbors (homeowners)	Use sparingly, avoid using near curbs and driveways and don't apply before it rains; consider non-toxic alternatives
Runoff	Watering lawn	People who over-water their lawn Adults 25-64, Neat Neighbors (homeowners)	Use water for lawn care wisely, to avoid waste and runoff; adjust and maintain sprinklers
Trash/Litter	Littering	People who litter Men 18-24, Rubbish Rebels	Put trash in a waste receptacle, instead of leaving it in the street, gutter or throwing it in a catch basin.
Yard waste	Gardening, lawn care	People who blow yard waste into the street Adults 25-64, Neat Neighbors (homeowners)	Recycle yard waste (if available); keep gutters clean

## Commercial Target Audiences:

Pollutant:	Behavior:	Target Audience:	Key Message:
Food waste, grease	Restaurant maintenance	Restaurant owners, mgrs. & employees	Keep food waste, grease and debris out of the street by following restaurant BMPs for external cleaning
Automotive fluids	Shop clean up, dumping	Repair shop owners, mgrs. & employees	Don't dump used automotive fluids; follow shop BMPs
Sediment, runoff	Construction, landscaping	Construction firms, developers & landscapers	Keep dirt on site by following sediment and erosion BMPs
Pesticide, fertilizers	Lawn care	Professional gardeners	Use garden chemicals sparingly; avoid curbs & driveways; consider non-toxic alternatives; encourage integrated pest management (IPM)

# Target Audiences & Key Messages

## Demographic Profiles from Segmentation Study

- Neat Neighbors:**
- Mostly middle class married couples with children. Predominantly Caucasian and Hispanic, age 25-54
  - Typically homeowners; if they rent, it's a single family dwelling rather than apartment or condo. Usually have pets.
  - Enjoy beach activities and water sports; consider themselves fairly knowledgeable about causes of water pollution.
  - Environmentally-conscious residents, avid recyclers, they take pride in their neighborhood
  - Unknowingly and unintentionally contribute to stormwater pollution.
  - Most likely to change behaviors if they learn what they are doing contributes to stormwater pollution.
  - Motivated by a variety of messages, including protecting their children, improving their neighborhood, protecting the environment and public health.
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- Fix It Foul-Ups:**
- Predominantly Men, Caucasian, 35 to 64, married with grown children; they are avid do-it-yourselfers
  - Most are high school graduates with possibly some college, but typically not a college degree.
  - Typically a production manager at a manufacturing company, with above-average household income, due in part to household having at least two wage-earners.
  - Enjoy and spend a lot of time working on their house, car, truck, boat, RV, etc., and unknowingly and unintentionally contribute to stormwater pollution.
  - Contribute disproportionately to stormwater pollution as a result of their consistent do-it-yourselfer activities.
  - Can be reached effectively through media, events and retail outlets related to do-it-yourself activities.
- 

- Rubbish Rebels:**
- Predominantly Men 18-24, majority are Hispanic, and one-quarter speaks Spanish at home.
  - Come from large families, most with households of four or more; average income, though one-third are unemployed.
  - Most likely to engage in almost every type of polluting behavior, and often deliberately.
  - The least environmentally conscientious segment, least likely to change their behavior and most difficult to motivate.
  - Though resistant to change, certain types of messages have the potential to get their attention, and even modest changes in their behaviors could result in a significant change in the volume of pollutants in the County's stormwater
  - Appear to be disenfranchised from their families and communities. Do not take pride in their neighborhood and care little about what others think of them.
  - Not strongly concerned about pollution, but ironically, feel somewhat knowledgeable about water pollution, perhaps because they are involved in beach activities and water sports.
  - May be receptive to messages that tie into their lifestyle; more likely than other segments to tune-in to messages about the ocean, rivers and lakes.

Source: Pelegrin Research Group, Los Angeles County Stormwater Segmentation Study, 1997

# Program Strategies

To achieve the public education program's objectives, the following ten strategies are recommended, for creating program messages, using paid media advertising and implementing non-media outreach.

## Strategies for Program Messages

### 1. Address behaviors directly:

Focus on specific pollution-causing behaviors and address them directly, and individually whenever possible, to increase the likelihood of changing those behaviors and reducing pollution. This strategy is based on the belief that increasing awareness of watershed dynamics or educating the public about the difference between the sewage and storm drain systems are not prerequisites to changing polluting behaviors. They are distinctly different communications goals.

In a cluttered environment where program messages must compete with thousands of others for the limited attention of their audience, the direct path of least resistance offers better potential for program messages to be seen, heard and heeded. As indicated in the public awareness survey:

A successful campaign will steer clear of technical explanations of storm drains and focus on tying *individual behavior* to something residents care about: pollution of the ocean, rivers and lakes of Orange County. (p. 9)

### 2. Make the message relevant to the audience:

Emphasize the relevant impact of stormwater pollution to each particular target audience, rather than relying on a general appeal to protect the environment. Each audience may be motivated by different concerns about stormwater pollution, such as their family's health, degradation of their neighborhood and the impact on property values or the risks to marine life.

The public awareness survey points out that coastal residents are significantly more concerned about pollution of the ocean, rivers and lakes than their inland counterparts. An appeal to protect the beach may not have the same resonance with inland residents as it would in coastal communities. Making program messages relevant to each audience's concerns—focusing on what they care about most—increases the likelihood that the messages will be noticed and that the audience will take the desired action as a result of seeing or hearing them.

# Program Strategies

## Strategies for Program Messages

(continued)

3. **Provide a specific call to action:**

Rather than relying on a general appeal to protect the environment or an ambiguous plea to reduce pollution, include a specific call to action in each message which offers a positive alternative to pollution-causing behaviors. As indicated in the public awareness survey, there is a reasonably strong foundation of public concern about water pollution, and a willingness to change behaviors. Let each audience know not only the relevant impact of stormwater pollution on their quality of life, but also what specific steps they can take to prevent pollution.

4. **Tailor the message to the audience and venue:**

To maximize effectiveness, tailor the personality, focus and depth of program messages appropriately for each audience and venue, rather than forcing a single message on all audiences and across all media. Each audience and venue presents unique challenges and opportunities. The personality of a brochure aimed at local businesses should be quite different from a poster targeting young men who litter. An outdoor poster can only effectively accommodate a simple, clear and concise message, while a brochure offers an opportunity to present more in-depth information in a more comprehensive manner, and a classroom presentation provides an opportunity to present even more detail.

### Media & Non-Media Strategies:

1. **Communicate messages when, where and in ways that add relevance and impact:**

Use paid media and implement non-media outreach to communicate program messages at times, in places and in ways that give the messages added relevance and impact. This increases the likelihood of the messages being seen or heard, and of leaving a lasting impression on the audience. This includes the following specific recommendations:

- *Use targeted ad placement*

Place print ads in sections or features that have a high probability of being read by the target audience. For example, most major newspapers have a gardening section, which is particularly well suited for messages promoting the safe use of lawn and garden chemicals. Special features associated with specific community events also offer opportunities for targeted placement.

# Program Strategies

## Media & Non-Media Strategies:

(continued)

### 1. Communicate messages when, where and in ways that add relevance and impact:

#### - *Take advantage of seasonal behaviors and activities*

Schedule paid media and non-media activities to coincide with the seasonal nature of certain behaviors and activities associated with stormwater pollution. For example, Spring is an especially relevant time to promote the safe use of lawn and garden chemicals, when lawncare and gardening activities are at their peak. Summer is a relevant time for anti-litter messages, when school is out and outdoor recreation is at its highest level.

#### - *Use geographic targeting*

Focus paid media and non-media activity in areas that have particular relevance. For example, litter is more of a problem in dense, low income and heavily ethnic neighborhoods than affluent suburban communities whose residents are generally more educated and environmentally aware. Geographic mapping of demographic and lifestyle data associated with stormwater pollution can help identify areas of particular interest.

### 2. Coordinate activities for maximum impact and effectiveness:

Coordinate paid media and non-media activities to maximize their impact and effectiveness. The odds of increasing awareness of stormwater pollution and changing behaviors increases when the target audience is exposed repeatedly to program messages from a variety of media and non-media sources, creating synergy across multiple program components.

### 3. Take advantage of media spill from neighboring programs:

Plan and schedule paid media to take advantage of media reaching into Orange County from neighboring programs, particularly Los Angeles. For example, Orange County is part of the Los Angeles radio MSA (metro survey area). For the past three years, stormwater radio advertising from Los Angeles has reached Orange County residents. The public awareness survey supports the value of this strategy:

Orange County residents appear to have benefited from the Los Angeles County Stormwater Public Education Campaign. Messages are breaking through at fairly high levels...nearly seven-in-ten residents (69%) recall some water pollution messages. (p. 8)

# Program Strategies

## **Media & Non-Media Strategies:**

(continued)

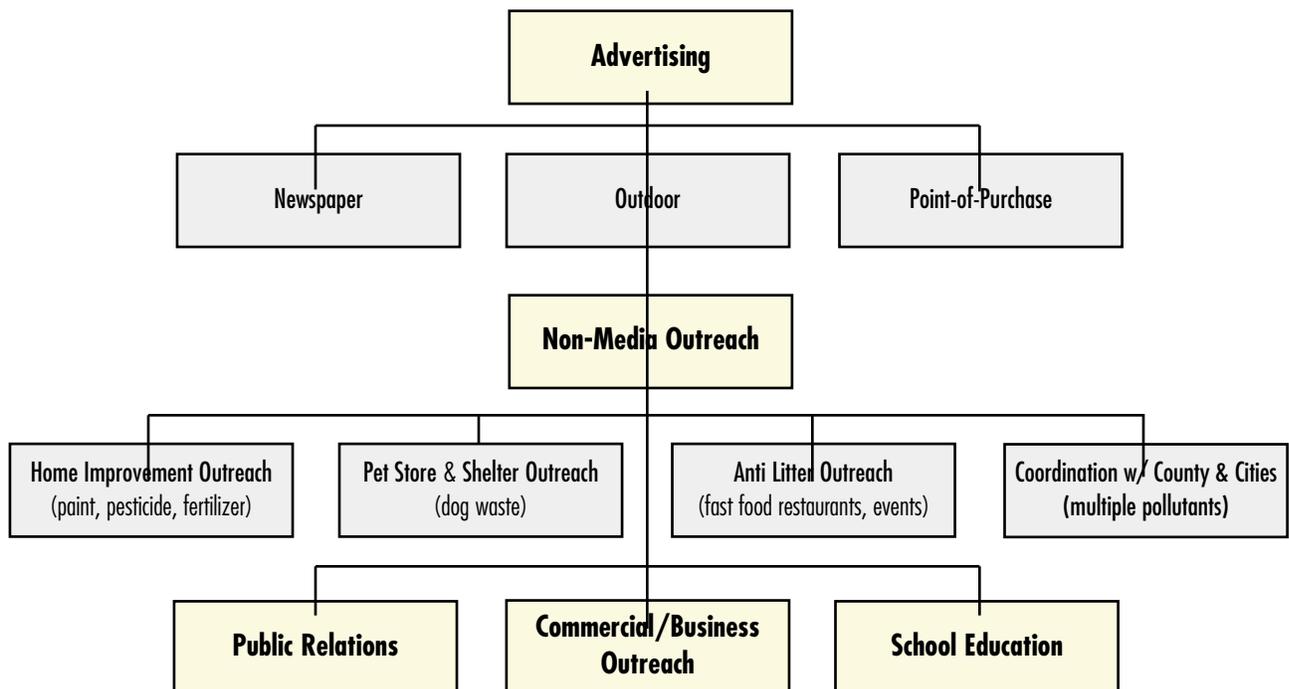
4. **Partner with businesses and organizations that reach our audience:**  
Work with businesses and organizations that reach stormwater target audiences, to communicate pollution prevention messages cost-effectively. For example, work with home improvement stores to reach homeowner do-it-yourselfers who routinely work with hazardous household materials, to promote proper use and disposal. Trade associations and business organizations like chambers of commerce offer opportunities to reach targeted businesses.
5. **Take advantage of existing communication outlets and distribution opportunities:**  
Look for opportunities to communicate stormwater messages cost-effectively through other agencies and programs. Though often not as targeted as other means, it is typically inexpensive. For example, city newsletters offer an opportunity to communicate pollution prevention messages to a large number of residents with minimal cost. Including inserts in utility bills offers another opportunity to take advantage of an existing distribution outlet.
6. **Direct program resources cost-effectively:**  
Direct program resources in a way that maximizes the potential for a return on the investment, now and in the future. Public education programs can easily fragment, with limited resources siphoned away for ineffective elements. To coin a phrase from the world of basketball, take high percentage shots, and focus on pollutants, behaviors and audiences that have the highest probability of being affected by public education.

# Program Plan Overview

The following program plan has a modular structure, consisting of multiple program components addressing similar pollutants, and designed to work in unison or independently. While the recommendations are presented within the context of a countywide program, most can be implemented in a particular watershed, region or individual city, modified or supplemented to address an area's specific needs, issues and requirements.

The model program consists of five primary components: 1) advertising; 2) non-media outreach; 3) commercial/business outreach, which includes activities targeting the construction and development industry; 3) public relations; and 4) school education. It includes budget allocations for a follow up public awareness survey and administration and reporting. It does not include a budget allocation for activities associated with the stormwater web site being developed under the current contract.

The estimated program cost is based on a combination of activities at levels required to achieve the program's objectives and meet NPDES requirements. On a per capita basis, it is equivalent to the annual public education expenditures of neighboring stormwater programs that have made measurable progress toward similar objectives.



# Budget Rationale

To determine an adequate public education funding level to meet NPDES permit requirements, we looked for examples of public education programs that have met similar requirements. Only the Los Angeles County/City program was determined to have developed and implemented an adequate program capable of meeting the requirements set for Orange County. The criteria used in determining a comprehensive program was the ability to meet the following requirements:

- A minimum objective of creating over 10 million impressions
- The goal of reaching 100% of residents, including businesses
- And the ability to measurably increase the knowledge and change the behavior of target audiences

In calculating a budget, we determined the funding level per capita for Los Angeles County, Los Angeles City, and a per capita level if spread over the entire permit area's population. The Los Angeles County permit is comprised of 85 jurisdictions, but the majority of the budget comes from the City and County. To simplify the calculation and obtain a more conservative figure, the total budget does not include dollars contributed by the other 83 jurisdictions, even though their populations are included. The lowest per capita figure was then used to calculate a corresponding budget based on Orange County's population. This amount calculates to \$917,664.00.

<b>Jurisdiction:</b>	<b>Annual Budget:</b>	<b>Population:</b>	<b>Per Capita Spending:</b>	<b>Proportional Budget for Orange County:</b>
City of Los Angeles	\$1,733,333	3,746,300	\$ 0.46	
County of Los Angeles	\$1,040,000	1,000,700	\$ 1.04	
Los Angeles County (permit area)	\$2,773,333	8,786,800	\$ 0.32	\$917,664

Overall, this figure may be on the low side of what is necessary to meet the permit requirements, given that Los Angeles County with its larger budget is able to leverage its dollars to obtain greater cost efficiencies. However, if the program is managed strategically to leverage its close proximity to Los Angeles, and by taking advantage of their creative and media planning efforts, Orange County should be able to meet its requirements at this more conservative level.

# Recommendation of a Brand

## Goal

Develop or recommend a brand identity and logo that will reinforce a sense of unity to Orange County's stormwater public education program. This is Task 7 from the current contract scope of work.

## Strategy & Rationale

Capitalize on the Project Pollution Prevention brand identity currently used on a de-facto regional basis by neighboring counties, particularly Los Angeles. This cost-effective strategy offers several additional advantages:

- **Integrates County messages with efforts already in the region:**

Adopting the Project Pollution Prevention brand identity integrates Orange County's message with an existing, coordinated regional effort targeting similar audiences and behaviors. Project Pollution Prevention is used by Los Angeles, San Bernardino and Riverside counties in stormwater advertising, a significant amount of which, particularly from Los Angeles, reaches into Orange County.

There is currently nothing in the radio commercials and only a small acknowledgement line in newspaper ads that identify the messages as being from a particular jurisdiction. This gives the messages geographic versatility, and allows Orange County to capitalize on the existing awareness of the brand and the combined media efforts of neighboring counties.

The logo for Project Pollution Prevention features the word "PROJECT" in a bold, uppercase, sans-serif font at the top. Below it, the word "Pollution" is written in a stylized, lowercase, cursive font. At the bottom, the word "PREVENTION" is written in a bold, uppercase, sans-serif font. The words "PROJECT" and "PREVENTION" are flanked by horizontal lines, and the word "Pollution" is also flanked by horizontal lines, creating a framed effect.

- **Well-positioned brand identity:**

Project Pollution Prevention is a strategically well-positioned, versatile brand identity. It works well with the complexity of stormwater public education, which must address multiple pollutants and target audiences with equal relevance, it has an activist, grassroots personality free of the baggage associated with messages from local government and is represented by a simple, distinctive logo that can incorporate a local reference when necessary.

# Program Outline & Cost Summary

## Advertising

Task & Description	Cost:	(%):	(%):
<b>Paid media:</b>			
Out-of-Home: Bus shelter posters & interior bus cards	\$219,000		
Newspaper: <i>O.C. Register, O.C. Weekly, Excelsior</i> & college newspapers	<u>\$116,065</u>		
	\$335,065	93%	
<b>Creative &amp; production expenses:</b>			
Out-of-Home: English & Spanish	\$21,240		
Newspaper: English & Spanish	<u>\$5,000</u>		
	\$26,240	7%	
Total, Advertising:	\$361,305	100%	49%

## Non-Media Outreach

Task & Description	Cost:	(%):	(%):
<b>Home improvement stores:</b> (paint, pesticides, fertilizer)			
Develop partnerships and schedule training sessions	\$3,500		
Conduct staff training sessions and place materials in stores	\$11,150		
Produce point-of-purchase materials	\$15,000		
Restocking & maintenance	<u>\$5,000</u>		
	\$34,650	23%	
<b>Pet supply stores &amp; animal shelters:</b> (dog waste)			
Develop partnerships and secure point-of-purchase placement	\$3,500		
Produce point-of-purchase materials	\$7,500		
Distribution of materials to stores, restocking & maintenance	\$8,500		
Coordinate production and placement of messages on animal collection vehicles	\$4,500		
Identify pet adoption events and staff tables	<u>\$3,850</u>		
	\$27,850	18%	
<b>Fast food restaurants:</b> (litter)			
Develop partnerships and options for litter prevention messages	\$3,300		
Produce point-of-purchase materials: tray liners, posters, placards or to go bags	\$10,000		
Distribution of materials to restaurants & maintenance	<u>\$2,500</u>		
	\$15,800	10%	

# Program Outline & Cost Summary

## Non-Media Outreach (cont.)

Task & Description	Cost:	(%):	(%):
<b>Rubbish Rebel events:</b> (litter)			
Identify target events & coordinate involvement	\$3,500		
Produce giveaway item and/or display materials	\$7,500		
Attend event (including booth fee) & display/distribute materials	<u>\$11,100</u>		
	\$22,100	14%	
<b>Outreach at Swap Meets &amp; Laundromats:</b> (litter)			
Identify target events and locations	\$3,520		
Produce giveaway item (events) and display materials (laundromats)	\$7,500		
Attend events, distribute materials to locations & maintenance	<u>\$19,220</u>		
	\$30,240	20%	
<b>Coordination with County &amp; Cities:</b> (multiple pollutants)			
Articles in city newsletters	\$5,830		
Posters in community facilities	\$3,300		
Messages on refuse & recycling collection trucks	\$9,550		
Distribution of restaurant fact sheets through public counters & inspectors	\$2,200		
Distribution of construction fact sheets by permit offices	<u>\$2,200</u>		
	\$23,080	15%	
Total, Non-Media Outreach:	\$153,720	100%	21%

## Commercial/Business Outreach

Task & Description	Cost:	(%):	(%):
<b>Partnerships with Chambers of Commerce:</b> (business BMPs)			
Collect contact info for all chambers of commerce	\$1,650		
Prepare general business BMPs article for placement in chamber newsletters	\$880		
Establish partnerships, place articles in publications and website & track placement	<u>\$4,400</u>		
	\$6,930	11%	

# Program Outline & Cost Summary

## Commercial/Business Outreach (cont.)

Task & Description	Cost:	(%):	(%):
<b>Restaurant outreach:</b> (pathogens)			
Produce bilingual fact sheet & poster for restaurants	\$9,500		
Develop partnerships with restaurant trade associations for distribution	\$2,215		
Coordinate with County Health Dept. to incorporate BMPs into inspection checklist	<u>\$2,200</u>		
	\$13,915	23%	
<b>Automotive repair outreach:</b> (automotive fluids)			
Produce fact sheet & poster for automotive repair shops	\$9,500		
Distribute fact sheets & posters	<u>\$6,500</u>		
	\$15,500	26%	
<b>Construction:</b> (sediment)			
Determine message and BMPs applicable to Orange County	\$1,650		
Produce BMP fact sheets for construction	\$2,500		
Distribute fact sheets	<u>\$3,500</u>		
	\$7,650	13%	
<b>Commercial landscape maintenance:</b> (sediment, debris)			
Produce bilingual fact sheets	\$3,500		
Vendor training & distribution of fact sheets	<u>\$12,500</u>		
	\$16,000	<u>27%</u>	
Total, Commercial/Business Outreach:	\$59,995	100%	8%

## Public Relations

Task & Description	Cost:	(%):	(%):
<b>Media relations:</b>			
Identify and coordinate participation in radio & television public affairs programs	\$4,500		
Produce and distribute news releases & articles to print & broadcast media	<u>\$5,500</u>		
	\$10,000	62%	
<b>Program newsletter:</b>			
Produce quarterly newsletter for co-permittees and stakeholder contacts & agencies	<u>\$6,000</u>	<u>38%</u>	
Total, Public Relations:	\$16,000	100%	2%

# Program Outline & Cost Summary

## School Education

Task & Description	Cost:	(%):	(%):
<b>Classroom Presentations:</b>			
Identify target schools & coordinate presentations	\$7,500		
Develop program & materials	\$12,500		
Conduct presentations	<u>\$20,000</u>		
	\$40,000	53%	
<b>Teacher Workshops:</b>			
Develop program & materials	\$5,000		
Conduct workshops	<u>\$15,000</u>		
	\$20,000	27%	
<b>Field Events:</b>			
Coordinate event & transportation	\$4,000		
Media relations associated with event(s)	\$3,000		
Conduct event	<u>\$8,000</u>		
	\$15,000	<u>20%</u>	
Total, School Education:	\$75,000	100%	10%
<b>Administration &amp; Reporting:</b> (annual)	<u>\$25,000</u>		3%
<b>Subtotal, Model Program Tasks:</b>	\$691,020		
<b>Public Awareness Survey:</b> (follow up to initial survey)	\$30,000		4%
<b>Non-Media Outreach to Required Businesses not in Model Program:</b>			
Mobile vehicle maintenance	\$7,500		
Carpet cleaners	\$7,500		
Pavement cutting	<u>\$7,500</u>		
	\$22,500		<u>3%</u>
<b>Total, Estimated Program Cost:</b>	<b>\$743,520</b>		100%



# Advertising

## Goal

Use advertising to reach a majority (51percent or more) of the selected target audiences with sufficient frequency (three or more times) to increase awareness of the causes, impact of and solutions to stormwater pollution and motivate them to change their polluting behaviors, while staying within the geographic confines of the County.

## Strategy & Rationale

Rely on a combination of 1) newspaper, 2) out-of-home and 3) point-of-purchase advertising to reach the target audiences. While not recommended as part of the core countywide program, the weekly community newspapers published by the *Orange County Register* offer a way for cities and watershed groups to implement the newspaper advertising component of the model program just in their areas.

- ***Orange County Register*: to reach gardeners & home improvement DIYers**  
Run ads promoting the safe use of pesticide, fertilizer and environmentally sound gardening and home improvement tips in the *Register's* weekly gardening section and special home improvement features. The typical *Register* reader fits the Neat Neighbor demographic profile, 63 percent of Orange County residents who shopped for lawn and garden supplies are readers (*Orange County Register*, 1996 Orange County Consumer Attitude Survey) and the section and features represent the most targeted print media opportunities to reach this audience.
- ***O.C. Weekly*: to reach younger demographic (18-34) & influencers**  
Run anti-litter and dog waste ads in the *O.C. Weekly*. The *Weekly* reaches a younger audience that is active and interested in environmental and social issues (83 percent reported participating in a cause-related activity or volunteering). Its readers tend to be opinion-makers and can influence others. It is comparatively inexpensive and has countywide distribution. In addition to running ads, an extended partnership could help establish a consistent presence in the publication, using their credibility to communicate program messages.
- ***Excelsior*: to reach Spanish-speaking members of the target audiences**  
Run a full series of ads addressing the primary residential polluting behaviors in *Excelsior*, with targeted ad placement whenever possible. It is the largest circulation Spanish newspaper in Orange County, it is one of the few opportunities to reach Spanish-speaking members of the target audiences only, it has countywide distribution and is comparatively inexpensive.

# Advertising

## Strategy & Rationale

(continued)

- **College newspapers: to reach a younger, 18-24 audience**  
Run anti-litter ads, including addressing cigarette butts, in the campus newspapers of local colleges and universities. This reaches the 18-24 segment that frequently litters, it also reaches influencers associated with the campus, the newspapers are inexpensive and they provide additional reach into communities countywide.
- **Bus shelter posters: to address on-the-street pollutants (litter, dog waste, cigarettes)**  
Use bus shelter posters to reach target audiences engaged in polluting behaviors that occur out on the street: litter, dog waste and cigarette butts. Bus shelter posters are visible where the polluting behaviors occur, they are one of the few outdoor mediums available in Orange County, they are less expensive than other outdoor (painted bulletins or exterior bus panels), they can be targeted geographically and they deliver the reach and frequency necessary to meet program objectives.
- **Interior bus cards: to address on-the-street pollutants & reach Spanish speakers**  
Use interior bus cards to reach target audiences engaged in polluting behaviors that occur out on the street—litter, dog waste and cigarette butts—and to reach Spanish-speaking members of the target audience. Interior bus cards are cost-effective—they have the lowest unit cost of the recommended media—they reach a predominantly lower income, heavily ethnic and younger audience more likely to be engaged in the targeted behaviors and allow program messages to be communicated year-round.
- **Point-of-purchase: to reach gardeners, home improvement DIYers & dog owners**  
Use point-of-purchase advertising, including shelftalker, counter cards and floor graphics, to reach gardeners (do-it-yourselfers, enthusiasts and professionals), home improvement do-it-yourselfers and dog owners. The venues are home improvement stores, pet stores and animal shelters. Although it is a form of advertising, it is organized in the model program as part of non-media outreach.

# Non-Media Outreach

## Goal

Employ cost-effective strategies that do not rely on paid media to reach selected target audiences with sufficient frequency to increase awareness and motivate them to change their polluting behaviors.

## Strategy & Rationale

Rely on a combination of 1) employee workshops and point-of-purchase advertising at businesses and in partnership with organizations through which program messages can reach selected audiences, 2) targeted events and venues and 3) coordinating with other County programs and with cities to take advantage of existing distribution opportunities.

- **Home improvement stores: to reach staff, gardeners & home improvement DIYers**  
Over 60 percent of Orange County residents shopped for lawn and garden supplies or home improvement needs, most often at large chain stores like Home Depot (*Orange County Register*, 1996 Orange County Consumer Attitude Survey). These stores also serve as trusted sources of information. Employee workshops provide staff with stormwater pollution prevention tips they can pass on to customers, and point-of-purchase advertising provides a year-round presence.
- **Pet stores & animal shelters: to reach dog owners**  
According to the public awareness survey, 31 percent of County residents—nearly one third of the population—own a dog. Point-of-purchase advertising at popular pet store chains like Petco and at animal shelters where new dog owners frequently acquire their pets offer targeted, cost-effective opportunities to communicate dog waste prevention messages.
- **Fast food restaurants: to address litter**  
A lot of litter is fast food waste, including cups and wrappers. Fast food chains are popular with young people, many of whom fit the Rubbish Rebel demographic profile, and who contribute disproportionately to litter. Point-of-purchase advertising with litter prevention messages, including mini-posters, tabletops, tray liners and to-go bags put the message when and where the problem occurs. The goodwill associated with being environmentally aware and the negative association of a company with the litter generated from its restaurants can help secure partnerships.

# Non-Media Outreach

## Strategy & Rationale

(continued)

- **Rubbish Rebel events: to address litter**

Incorporating pollution prevention messages into popular lifestyle interests increases the odds of reaching Rubbish Rebels. Signage (posters, banners and displays), giveaways and promotions tied to concerts and sporting events associates program messages with popular interests and offers targeted opportunities to reach this segment.

- **Outreach at Swap Meets & Laundromats: to address litter**

These venues are popular with lower income and Spanish-speaking residents, who contribute disproportionately to litter. Swap meets consistently attract large crowds and provide cost-effective opportunities for signage and distribution of educational materials. Most laundromats have bulletin boards or areas for posters, and allows for extended exposure to program messages, as patrons are almost a captive audience while they wait for their laundry.

- **Coordination with County & cities: to capitalize on existing communication outlets**

The model program includes five recommendations for disseminating program messages through existing communication outlets: 1) placing stormwater pollution prevention articles in city newsletters; 2) displaying posters in community facilities; 3) displaying placards or panels on refuse and recycling collection trucks; 4) distribution of restaurant BMP fact sheets through public counters and inspectors; and 5) distribution of construction BMP fact sheets by permit offices when issuing permits. All of these recommendations are cost-effective, and, in the case of working with inspectors and permit offices, highly targeted.

# Commercial-Business Outreach

## Goal

Reach a majority of targeted businesses (51 percent or more) that significantly contribute to stormwater pollution, employing cost-effective strategies to increase awareness of the causes, impact and solutions to stormwater pollution, and motivate them to follow best management practices for their industry.

## Strategy & Rationale

Rely on a combination of 1) working with trade associations and Chambers of Commerce, 2) coordinating with County departments and cities, and 3) partnering with suppliers and vendors that cater to targeted businesses, to reach four primary segments: 1) restaurants, 2) automotive repair shops, 3) construction/development firms and 4) commercial landscape maintenance services.

A budget has also been allocated in the cost summary for three business segments listed in the Santa Ana NPDES permit that are not part of the model program: 1) mobile vehicle maintenance, 2) carpet cleaners and 3) pavement cutting services.

### - **Restaurants:**

In addition to the strategy listed in non-media outreach, of distributing restaurant BMP fact sheets through public counters and inspectors, coordinating with the County Health Department to incorporate BMPs into their inspection checklist is a cost-effective way to promote pollution prevention. Distributing posters for display in employee areas can reinforce BMPs to restaurant staff, and developing partnerships with restaurant trade associations presents additional opportunities to reach restaurants with pollution prevention messages.

### - **Automotive repair shops:**

In addition to distributing BMP fact sheets and posters, there are comparatively fewer opportunities to reach automotive repair shops with many of the recommended strategies. The overlap with used motor oil recycling and household hazardous waste programs could present additional opportunities to reach shop employees with pollution prevention messages.

# Commercial/Business Outreach

## **Strategy & Rationale**

(continued)

- **Construction/development:**

Distribution of construction BMP fact sheets by permit offices when issuing permits offers the most targeted opportunity to reach this segment. Direct mailing of fact sheets and follow up prevention messages and non-media outreach through home improvement stores, specifically taking advantage of Home Depot's service to contractors, can supplement reaching this segment through the permit process.

- **Commercial landscape maintenance:**

Smaller businesses tend not to join peer organizations, but often look to their vendors as sources of reliable information about regulations and best management practices. Distributing BMP fact sheets and tip cards to professional gardeners and landscape maintenance professionals through their product and service vendors, like wholesale nurseries, equipment maintenance services and the contractor departments of Home Depot, is targeted and cost-effective.

# Public Relations

## Goal

Increase awareness of stormwater pollution and the County's stormwater pollution prevention efforts through print and broadcast news sources and with internal communications.

## Strategy & Rationale

Establish a consistent voice and presence with four elements: 1) routine use of news releases, 2) issue-related articles submitted to local print media, 3) appearances by a program spokesperson on public affairs programs and 4) a program newsletter that puts a face to the program and increases awareness of program activities, for co-permittees other department representatives, stakeholder groups and community organizations.

### - Routine use of news releases:

A consistent media relations effort increases the odds for success in trying to use print and broadcast news sources to communicate program messages. News releases provide a consistent way to disseminate information, especially during seasonal periods when stormwater pollution is especially relevant, like the rainy season and peak beach-going summer months.

### - Issue-related articles:

Special editorial features, sections and supplements can present opportunities to submit articles focusing on specific pollutants or issues related to stormwater pollution, either independently or in conjunction with a paid ad. For example, an editorial feature focusing on summer recreation could be an opportunity to submit an article on the swimming-related health risks of stormwater pollution.

### - Public affairs programs:

Radio public affairs programs like KPCC-FM's *Talk of the City* have routinely focused on stormwater pollution. This presents an excellent opportunity for a spokesperson to be a guest and increase awareness of the public education program and pollution prevention tips.

### - Program newsletter:

A well-designed and written newsletter, issued quarterly or semi-annually, can be a valuable communications tool to present the program to co-permittees, city councils, environmental advocacy groups and other stakeholder organizations.

# School Education

## Goal

Establish a stormwater school education program to reach a majority of Orange County elementary, middle and high school students (51 percent or more) by the end of the permit period.

## Strategy & Rationale

Develop and implement a multi-faceted program, combining classroom presentations, assemblies, teacher workshops and field events.

Outreach to school children is the core to developing an environmental ethic in the next generation that can help prevent stormwater pollution. A coordinated and comprehensive program that combines multiple elements—classroom or assembly presentations, teacher workshops and field events—can be implemented in its entirety or selectively, and has more potential to leave a lasting impression on kids than stand-alone activities.

- **Classroom & assembly presentation:**

The backbone of most stormwater school education programs, it is the best opportunity to present detailed information in a wider context to kids by using videos, slide shows, printed materials and three-dimensional models like Enviroscares.

- **Teacher workshops:**

These can involve and engage teachers in the school education program and provide them with tools to integrate watershed awareness, pollution prevention and ecosystem protection issues into daily lesson plans.

- **Field events:**

Local beach clean ups and events surround Earth Day provide opportunities to get kids involved and extends the classroom experience. They can provide kids with an opportunity to see firsthand the impact of stormwater pollution on local beaches and waterways

# Website Development

## Goal

Design and establish a stormwater public education web site to disseminate information to targeted residential and commercial population segments as well as the general public, and provide website materials to co-permittees. This is Task 8 of the current contract scope of work.

## Strategy & Rationale

The web site is being developed and is scheduled to be complete by the end of March. Key strategic guidelines directing the site design and development include:

- **Modular, uniform page and site design:**  
For maximum functionality and legibility, and to meet the needs of co-permittees, the page and site design will be built on a consistent pattern of modular units that all share the same basic layout grids, graphic themes, editorial conventions and hierarchies of organization.
- **Techniques to accommodate multiple audiences:**  
Employ organizational structures, editorial style and graphic design to accommodate the variety of audiences who may use the site. For example, use a path-based home page to split the audience immediately into interest groups—students, businesses, environmental groups—and to offer them more information specifically tailored to their needs in menu pages deeper within the site.

# Watershed & City Implementation

## Goal

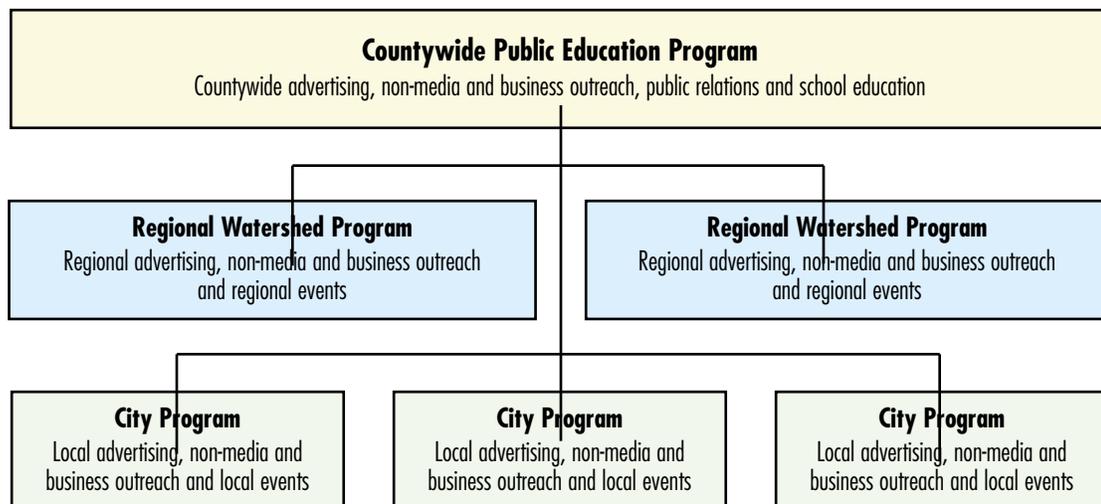
Provide strategic direction and recommendations to co-permittees, including watershed groups and cities, for the implementation of stormwater public education in their jurisdictions, and facilitate their involvement in public education.

## Strategy & Rationale

Rely on the countywide program to establish the umbrella look, theme and focus of public education materials, and use them to employ similar outreach strategies for local efforts that cities and watershed groups are best positioned to implement.

An analogy that illustrates the recommended relationship and coordination between the countywide program and those of watershed groups and individual cities is that of an automobile manufacturer and its regional dealer groups. Manufacturers like Ford and Toyota establish an overall brand strategy which determines the look, theme and focus of marketing and advertising materials. These are provided to dealer groups, so that their regional advertising augments and is consistent with the national campaign. The result is a consistent, coordinated effort that more effectively communicates the brand's identity and attributes to the target audience.

For Orange County's stormwater public education, the countywide program serves as the umbrella campaign, with watershed groups and individual cities augmenting and reinforcing the countywide effort with local and regional efforts, as illustrated below.



# Watershed & City Implementation

## Strategy & Rationale

(continued)

### Advertising:

- **Orange County Register community newspapers:**  
Run ads in one of the *Register's* community newspapers serving an individual city, or in several that reach residents within a particular watershed. The weekly newspapers are inexpensive and distributed to a majority of residents. Securing editorial coverage of stormwater issues or submitting a prepared article for publication offer opportunities to supplement a paid advertising schedule.
- **Out-of-home media opportunities:**  
The countywide bus shelter poster advertising can be extended with the purchase of additional panels in a particular city or watershed. Interior bus cards and bus benches are additional out-of-home media options with low unit costs that can be purchased in limited quantity and can be targeted geographically.

### Non-media outreach:

- **Expansion of non-media outreach to additional retailers:**  
Expand the countywide non-media outreach by placing point-of-purchase advertising, including shelftalkers, tip cards and tearpads, in additional retailers, such as home improvement stores and pet supply stores. Countywide efforts may initially focus on locations of the top two or three national chains, leaving additional opportunities for cities and watershed groups to extend the effort to regional chains and local independent stores.
- **Event promotions:**  
Local community events offer opportunities to reach residents with signage, printed materials and giveaways. Events can reach certain population segments, based on recreational and lifestyle interests or demographic characteristics, and are particularly well-suited for cities and regional groups.

### Commercial-business outreach:

- **Chambers of commerce:**  
Working with chambers to include stormwater BMP articles in their newsletters is a cost-effective way to reach local businesses with pollution prevention messages.

# Watershed & City Implementation

## Strategy & Rationale

(continued)

### Commercial-business outreach: (cont.)

- **Outreach through permit and license departments:**  
Reaching business owners through city permit and licensing processes present targeted, cost-effective outreach opportunities.

### Coordination with other agencies & programs:

- **City newsletters:**  
Consistent with the strategy of capitalizing on existing avenues of communication, city newsletters offer a cost-effective way to reach residents within a city or watershed. City and watershed NPDES representatives are well-positioned within local government to coordinate with public information departments to get stormwater pollution prevention articles, print ads or inserts published or included in city newsletters.
- **Utility bill inserts:**  
The routine mailings of utility bills offers another consistent opportunity to take advantage of an existing avenue of communication, by including inserts that feature stormwater pollution prevention messages.

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**ORANGE COUNTY STORMWATER  
PUBLIC AWARENESS SURVEY  
- Report -**

**Prepared for:**



**Orange County Public Facilities & Resources Department**

**January 2002**

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## **BACKGROUND AND OBJECTIVES°**

# BACKGROUND AND OBJECTIVES<sup>o</sup>

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- In 2001, Orange County's Public Facilities & Resources Department commissioned Industrial Strength Advertising to develop and implement a public education campaign centered on stormwater pollution. One component of this campaign is a **public awareness survey**. The Orange County Stormwater public awareness survey will support the program goals by:
  - Providing a **baseline** measure of residents' stormwater-related attitudes, practices and habits against which future outreach efforts can be measured.
  - Providing Industrial Strength Advertising an additional source of information for developing the public education campaign.
- This report describes the **current state** of attitudes, beliefs and behaviors related to stormwater pollution prevention among Orange County residents and compares them, where appropriate, to attitudes, beliefs and behaviors identified in the Los Angeles County Stormwater public awareness survey.

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# METHODOLOGY<sup>o</sup>

# METHODOLOGY<sup>o</sup>

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- In October of 2001, **207** telephone interviews were conducted with Orange County residents.
- Participants were drawn from a **representative sample** of random-digit phone numbers for Orange County.
  - Quotas were established for **gender, age** and **ethnicity** based on census data.
  - Interviews were conducted in English and Spanish.
- Participants were:
  - **16+** years of age.
  - Permanent **residents** of Orange County.
  - Resident in Orange County for **six months** or more.
- All data reported are unweighted.
- Statistical significance testing is based on a 95% confidence level.
  - The number of people answering any question (referred to as the “base”), as well as the placement of the numbers on the normal or bell curve, affect whether or not two numbers are considered “statistically significantly different.”
- Up arrows (↑) and down arrows (↓) represent a statistically significant **difference** between counties.
  - For ease of interpretation, all statistically significant differences between numbers are indicated by up or down arrows or by a letter designation.

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## **EXECUTIVE SUMMARY AND CONCLUSIONS<sup>o</sup>**

# EXECUTIVE SUMMARY AND CONCLUSIONS<sup>o</sup>

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- Public **concern** over water pollution and, to a lesser extent, litter and trash pollution are high in Orange County despite **competing public issues**.
- Among Orange County residents there is a reasonably **strong foundation** of public concern about water pollution, some knowledge of issues related to pollution and a **willingness to change** behaviors. All of these are positive starting points from which to build a successful social change campaign.
  - **Water pollution ranks high** in terms of public health and safety issues that residents are **very concerned** about among a list that includes terrorism, traffic congestion, crime, unemployment and the El Toro Airport.
- Coastal residents are significantly more **concerned about pollution** of the ocean, rivers and lakes than their inland counterparts.
  - Two-thirds (66%) of **coastal** residents are **very concerned** about pollution as compared to just under half (45%) of **inland** residents.
  - Coastal residents are more likely to have been **impacted** by a beach closure (50% and 25%, respectively).
- Since Orange County residents are more concerned with water pollution than litter or trash, a social change campaign that focuses specifically on litter will likely have a **harder time** capturing the interest of Orange County residents unless it includes **compelling** information to give them a reason to feel concerned.
- Water pollution outreach efforts have reached Orange County residents.
  - Messages about water pollution, litter and chemical use found in the Los Angeles campaign are **breaking through** to Orange County residents at fairly high levels.
  - Nearly seven-in-ten (69%) Orange County residents recall some water pollution messages.
  - Orange County residents are hearing that **motor oil, litter/trash, chemicals, pesticides, dog waste** and **fertilizers** are pollutants of concern to runoff water quality.

# EXECUTIVE SUMMARY AND CONCLUSIONS<sup>o</sup>

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- Orange County residents connect both **personal health problems** and **ecological damage** to stormwater pollution.
  - **Pollution of the ocean** (48%), **killing or threatening marine life** (24%), **health problems** (13%) and **closing beaches** (13%) are key consequences residents tie to stormwater pollution.
- While Orange County residents appear to be **aware** of pollution-causing **substances**, like their Los Angeles County counterparts, they are engaging in **behaviors** that could be harmful to stormwater quality.
  - Over-watering lawns represents the most **frequent** behavior that negatively affects stormwater quality.
  - Other frequent polluting behaviors include **hosing leaves** or dirt into the street, leaving **trash** on top of or beside an overflowing trash can, dropping **cigarette butts** on the ground and **dropping litter** on the ground or out of a car window.
    - Younger male residents are the most likely to litter.
- **Television, newspapers** and the **Internet** are **more important** media for water pollution messages for Orange County versus Los Angeles County residents.
  - Sixty-eight percent (68%) and 66% of Orange County residents obtain water pollution information from TV and newspapers, respectively, versus 48% and 23% of Los Angeles County residents, respectively.
  - In addition, Orange County residents are more likely to have Internet access than Los Angeles County residents (88% versus 75%, respectively).
- While a solid majority (67%) of Orange County residents **correctly** believe that stormwater **goes to the ocean untreated**, youths are more likely to believe that water that enters the storm drain system goes to a treatment facility.
- An **opportunity** appears to exist for the Orange County Public Education Program to **positively impact** residents' understanding of the relationship between their behavior, runoff water, and ecological damage.
  - That residents misunderstand the relationship between sewage and storm drain systems is likely tied to their **lack of interest** in either.
  - A successful campaign will steer clear of technical explanations of storm drains and focus on **tying individual behavior** to something residents care about: pollution of the ocean, rivers and lakes of Orange County.

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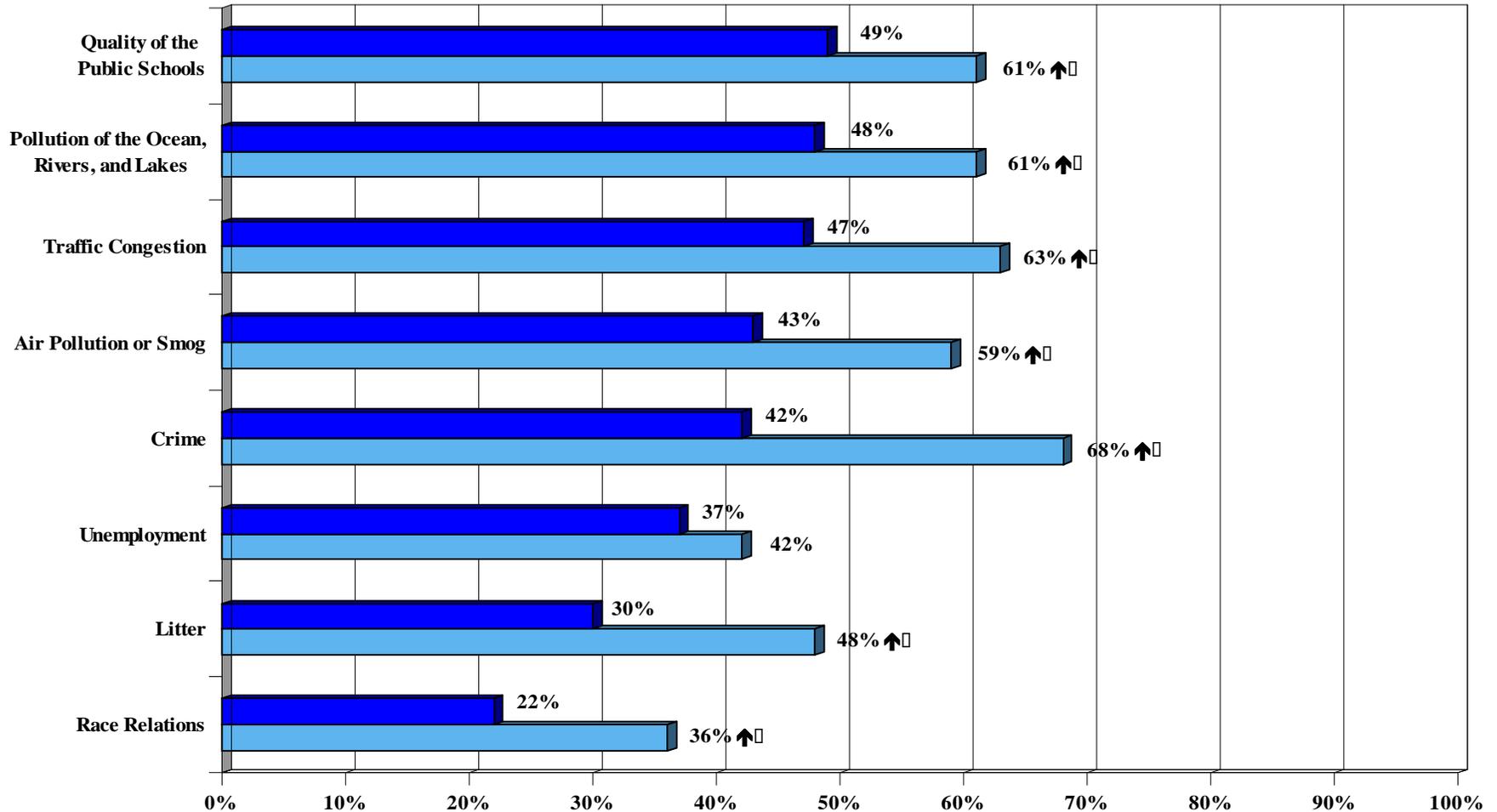
# DETAILED FINDINGS<sup>o</sup>

# ATTITUDES AND AWARENESS<sup>o</sup>

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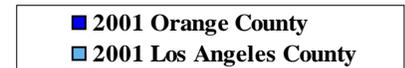
- In the face of major national and international economic and political events including terrorism and rising unemployment, Orange County residents still rank pollution of the ocean, rivers and lakes as an issue of **concern**.
  - While half (51%) of residents are very concerned about terrorism, nearly half (48%) of residents are also **very concerned** about pollution of the ocean, rivers and lakes.
- In contrast with Los Angeles County residents, **fewer** Orange County residents are very concerned about **policy issues** in general.
  - Concern regarding crime, quality of the public schools, traffic congestion and race relations is significantly lower among Orange County residents than among Los Angeles County residents.
  - Concern about air pollution or smog, **pollution of the ocean, rivers and lakes** and **litter** is also significantly lower among Orange County than Los Angeles County residents.
- While concern about water pollution is moderately **high**, litter is seen as a relatively **less important** matter.
  - The percentage of Orange County residents who are very concerned about litter (30%) is significantly **lower** than the corresponding concern about water pollution (48%).
- Awareness of water pollution messages is **high** among Orange County residents.
  - A significantly higher percentage of Orange County residents is aware of water pollution **messages** than Los Angeles County residents (69% versus 58%).
  - Orange County residents are most likely to learn about water pollution issues from TV (68%) and newspaper (66%).
- Awareness of litter or trash messages is **relatively low** among Orange County residents.
  - While no comparable question was asked of Los Angeles County residents, only about four-in-ten (39%) residents recall seeing, hearing or reading anything about **litter** or **trash**.
- Three quarters (75%) of Orange County residents are somewhat or very interested in **learning** about water pollution.

# Concern About Issues Facing Orange County and Los Angeles County - Very Concerned -



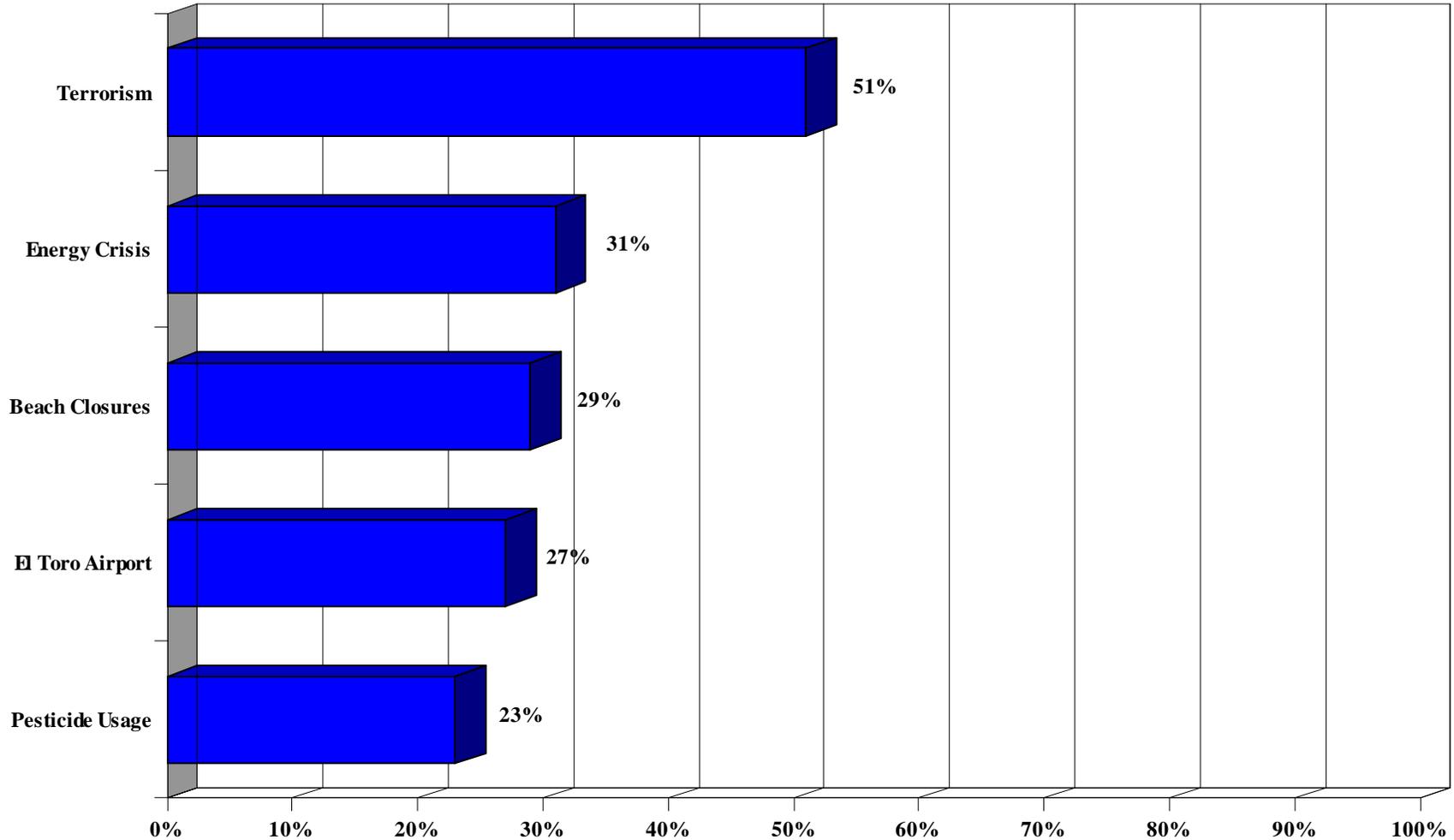
Base: Total Orange County residents (N=207)/Total Los Angeles County residents (N=1,000)

Questions: How concerned are you about each of the following issues? Would you say you are very, somewhat, not very or not at all concerned?



# Concern About Issues Facing Orange County<sup>o</sup>

## - Very Concerned -<sup>o</sup>

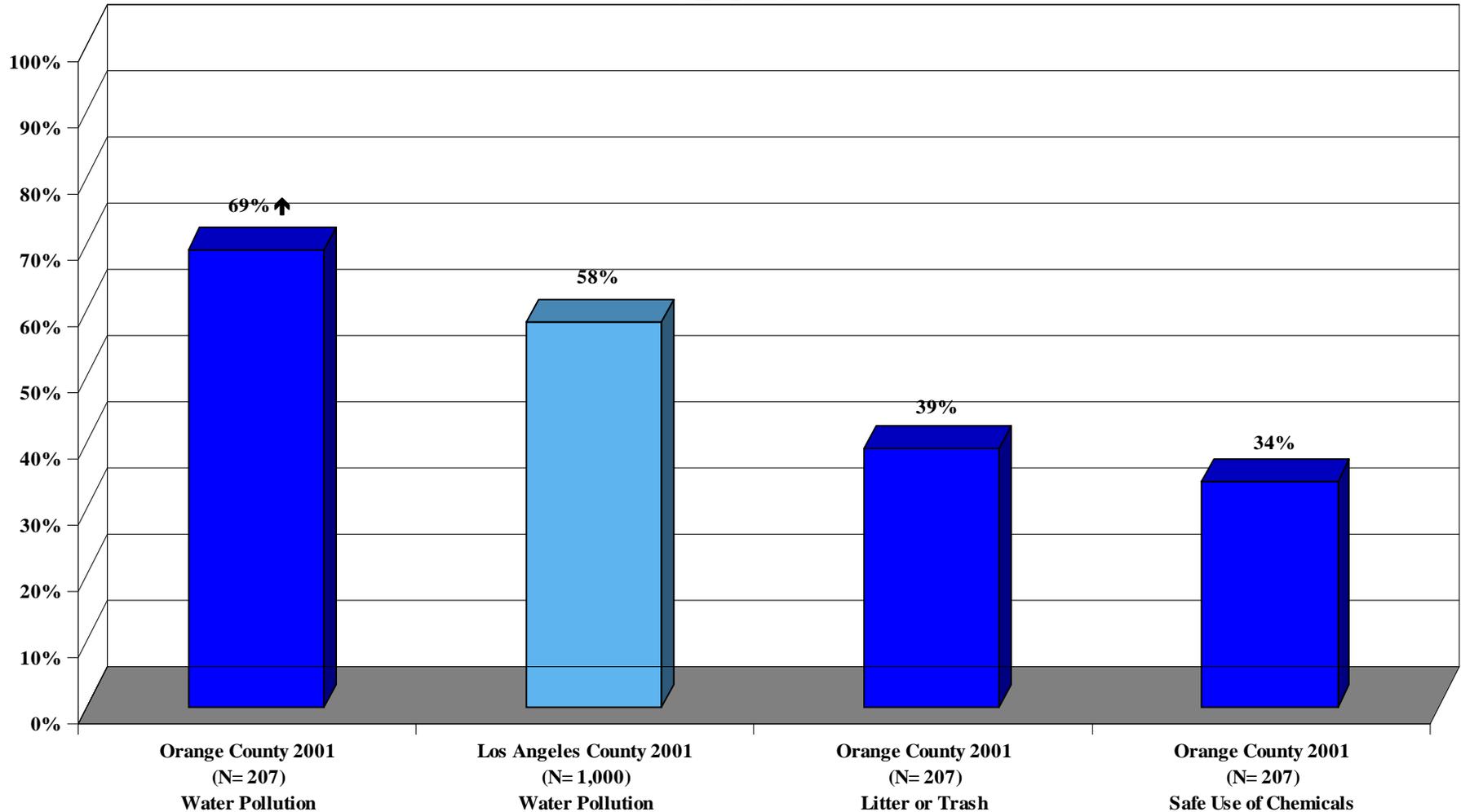


Base: Total Orange County residents (N=207)

Questions: How concerned are you about each of the following issues?

Would you say you are very, somewhat, not very or not at all concerned?

# Recall Information About Water Pollution, Litter,<sup>o</sup> Safe Use of Chemicals<sup>o</sup> - Unaided -<sup>o</sup>



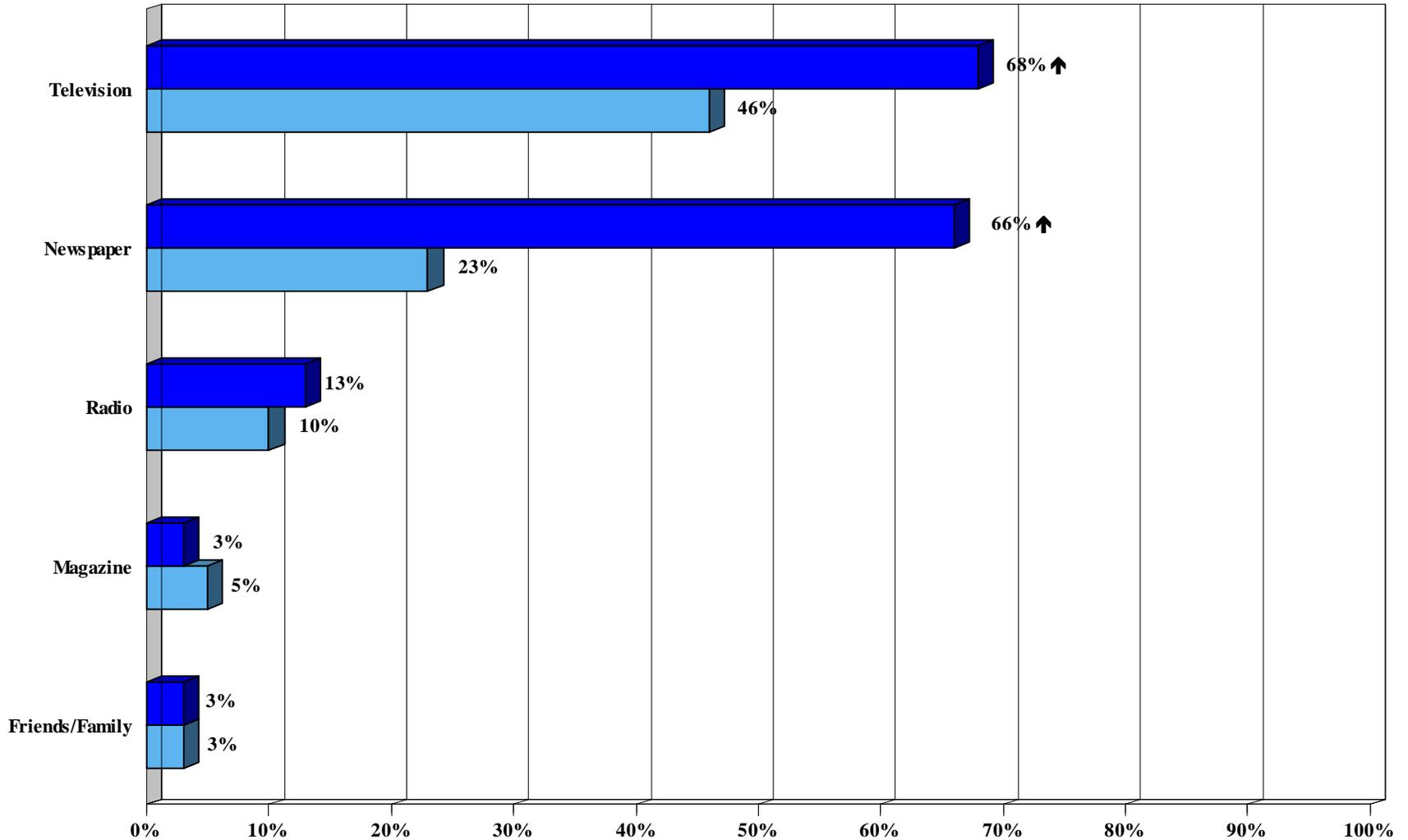
Base: Total Orange County residents (N=207)/Total Los Angeles County residents (N=1,000)

Question: In the past few months, do you recall seeing, hearing or reading anything about pollution of the ocean, rivers or lakes?

In the past few months, do you recall seeing, hearing or reading anything about litter or trash? Do you recall seeing, hearing or reading anything about the safe use of lawn and garden chemicals?

# Sources of Water Pollution Information<sup>o</sup>

## - Unaided -<sup>o</sup>

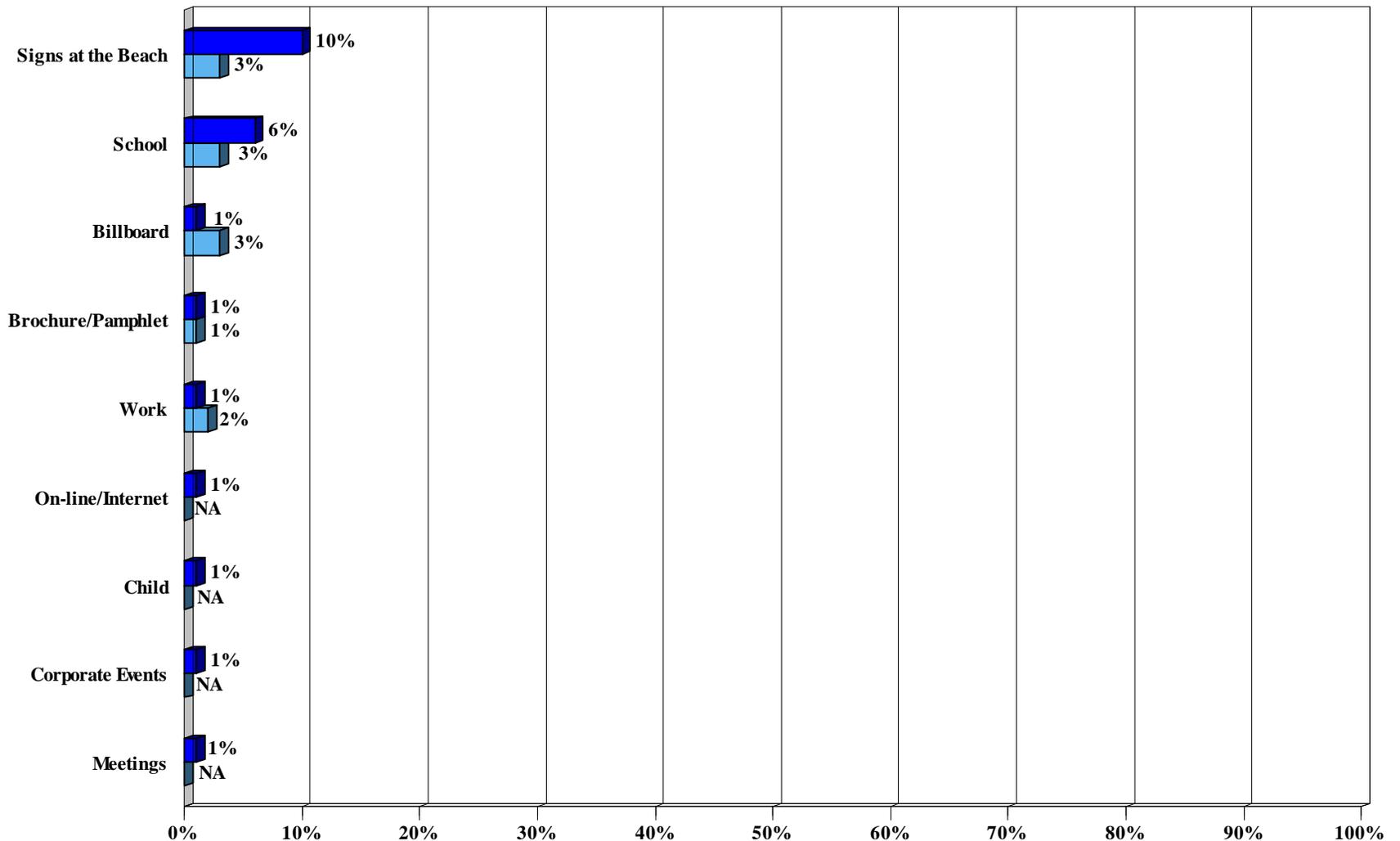


Base: Orange County residents who recall seeing or hearing something about pollution of the oceans, rivers and lakes (N=142)  
 Los Angeles County residents who recall seeing or hearing something about pollution of the oceans, rivers and lakes (N=328)  
 Question: Where have you seen or heard something about pollution of the ocean, rivers, and lakes?

■ 2001 Orange County  
 ■ 2001 Los Angeles County

# Sources of Water Pollution Information<sup>o</sup>

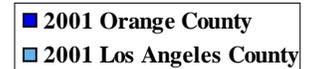
## - Unaided -<sup>o</sup>



Base: Orange County residents who recall seeing or hearing something about pollution of the oceans, rivers and lakes (N=142)

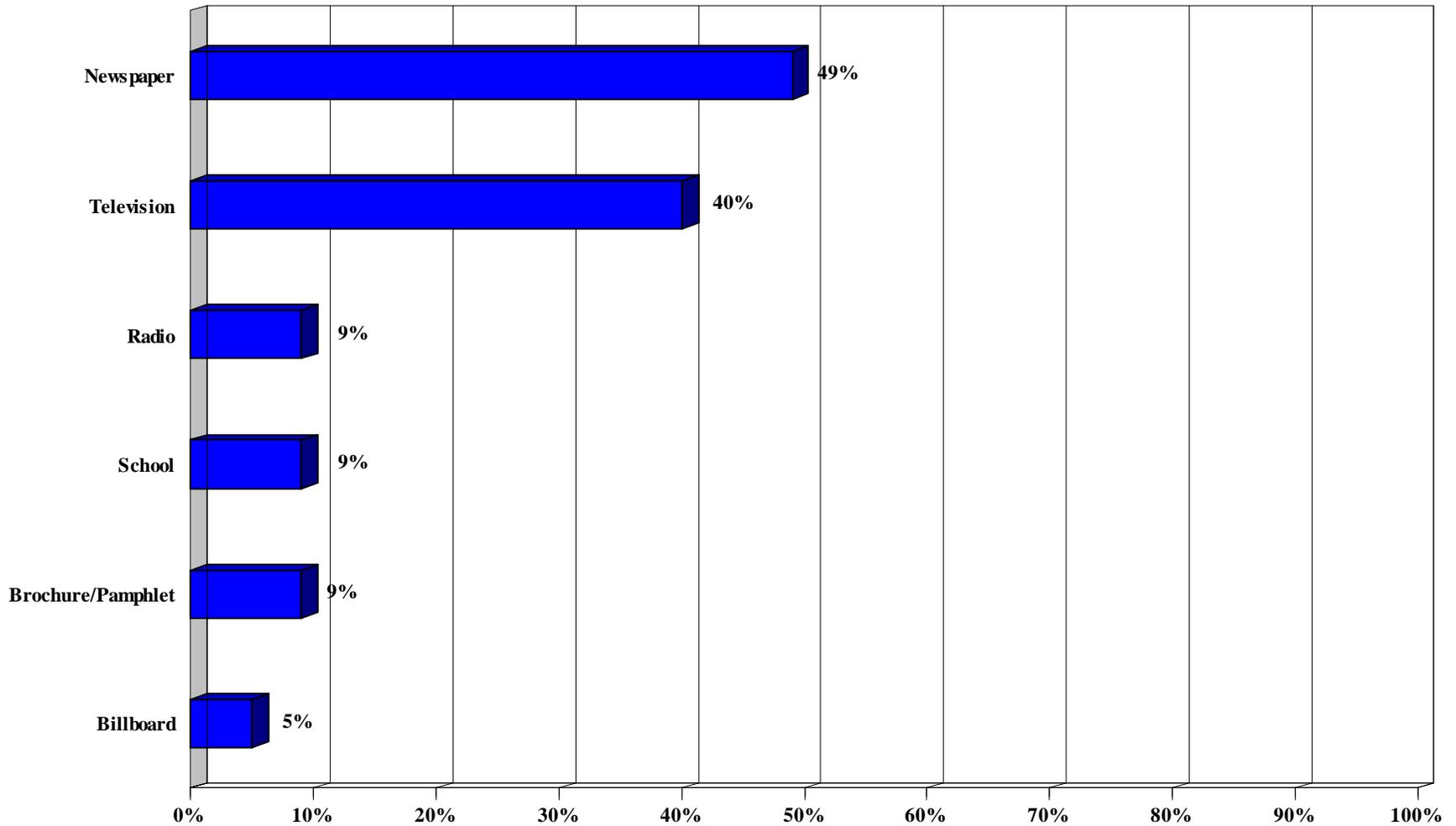
Los Angeles County residents who recall seeing or hearing something about pollution of the oceans, rivers and lakes (N=328)

Question: Where have you seen or heard something about pollution of the ocean, rivers, and lakes?



# Sources of Litter or Trash Information<sup>o</sup>

## - Unaided -<sup>o</sup>

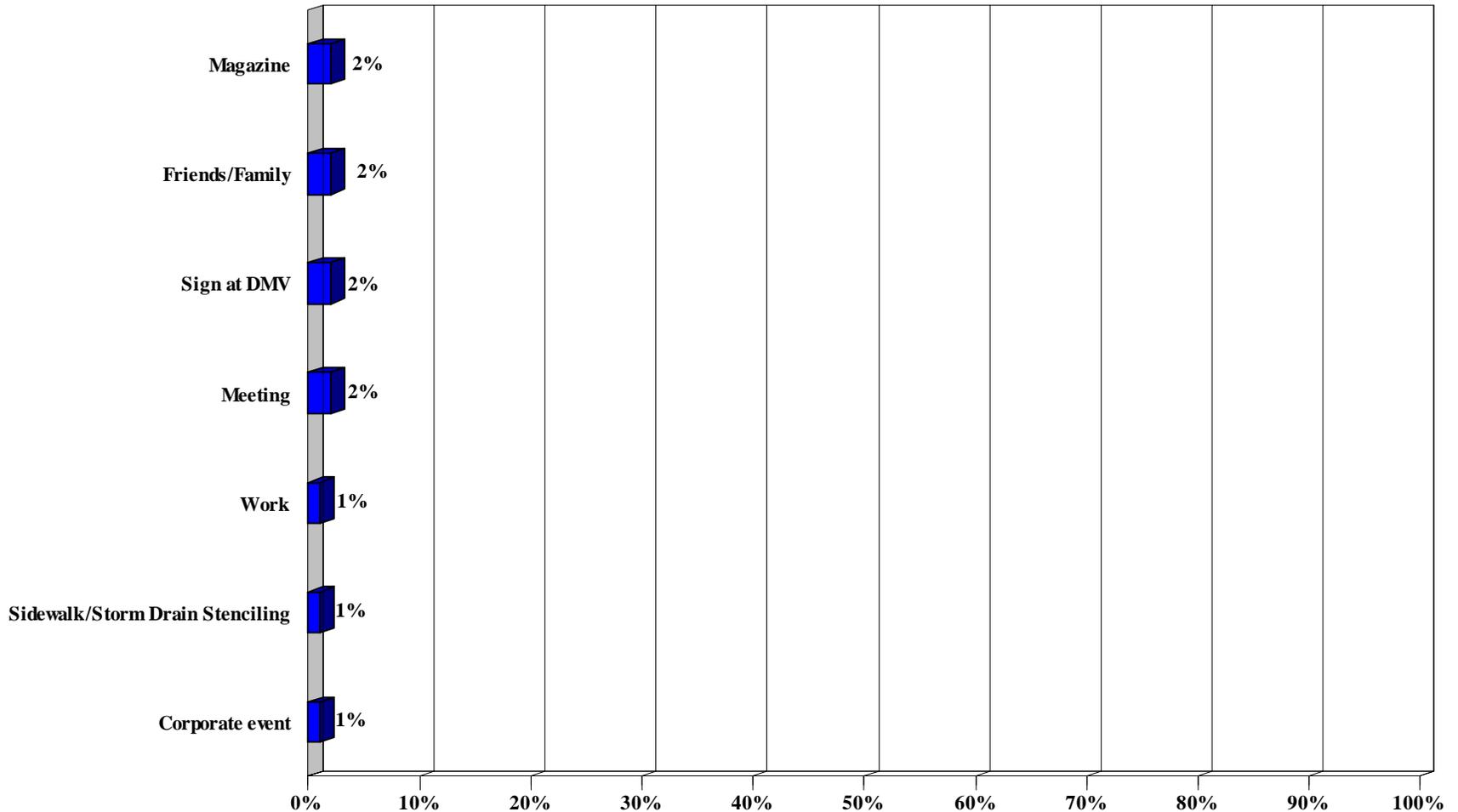


Base: Total Orange County residents who recall seeing, hearing or reading about litter or trash (N= 81)

Question: Where have you seen or heard something about litter or trash?

# Sources of Litter or Trash Information<sup>o</sup>

## - Unaided -<sup>o</sup>

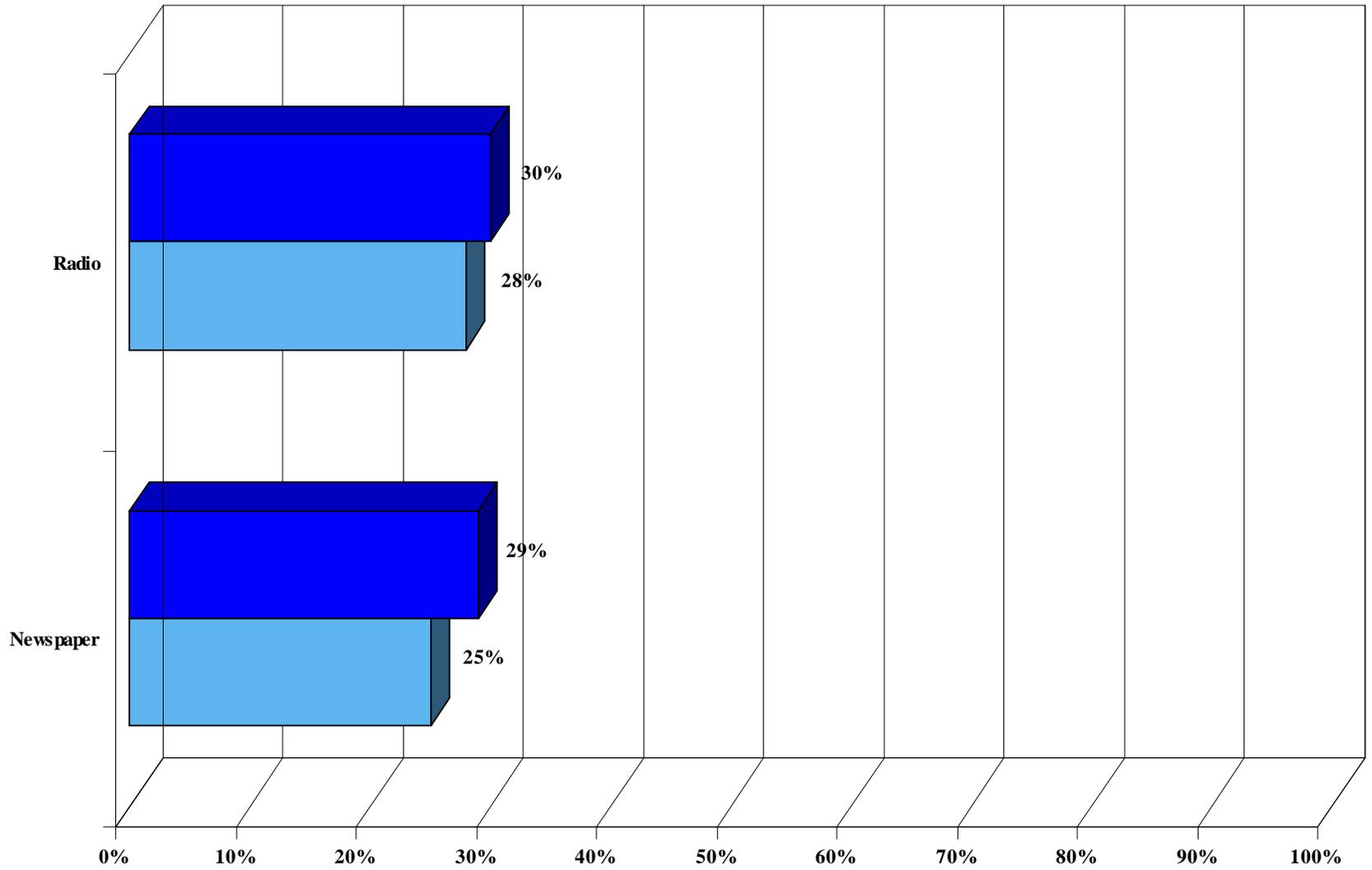


Base: Total Orange County residents who recall seeing, hearing or reading about litter or trash (N= 81)

Question: Where have you seen or heard something about litter or trash?

# Recall Storm Drain Pollution Advertising by Source<sup>o</sup>

## - Aided -<sup>o</sup>



Base: Total Orange County residents (N= 207)/Total Los Angeles County residents (N= 1,000)

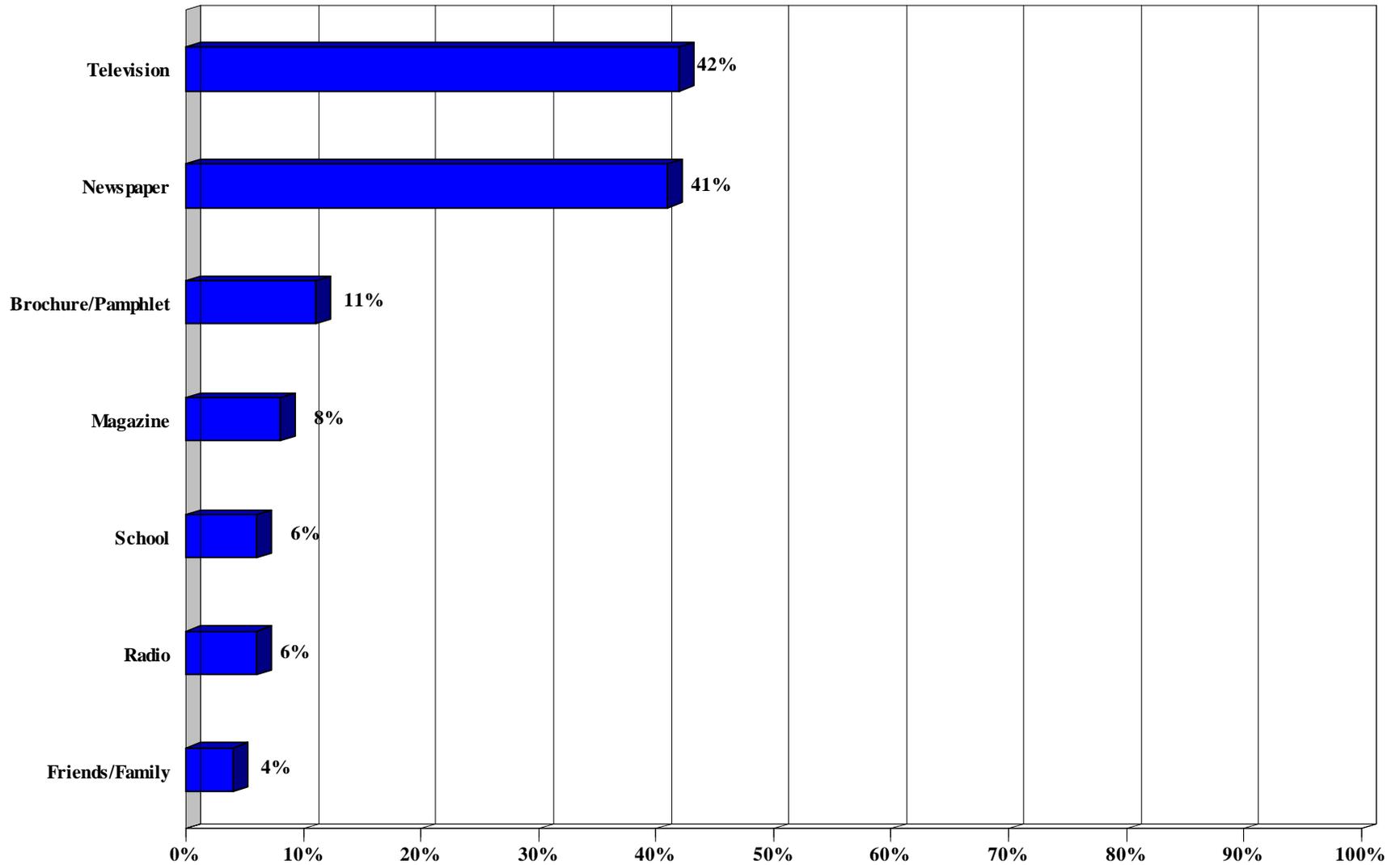
Question: Do you recall hearing/seeing any radio/newspaper advertising that talks about things getting into the storm drains and causing problems? (Note: LA County residents asked about magazine advertising as well.)

■ 2001 Orange County  
 ■ 2001 Los Angeles County



# Sources of Safe Use of Chemicals Advertising<sup>o</sup>

## - Unaided -<sup>o</sup>

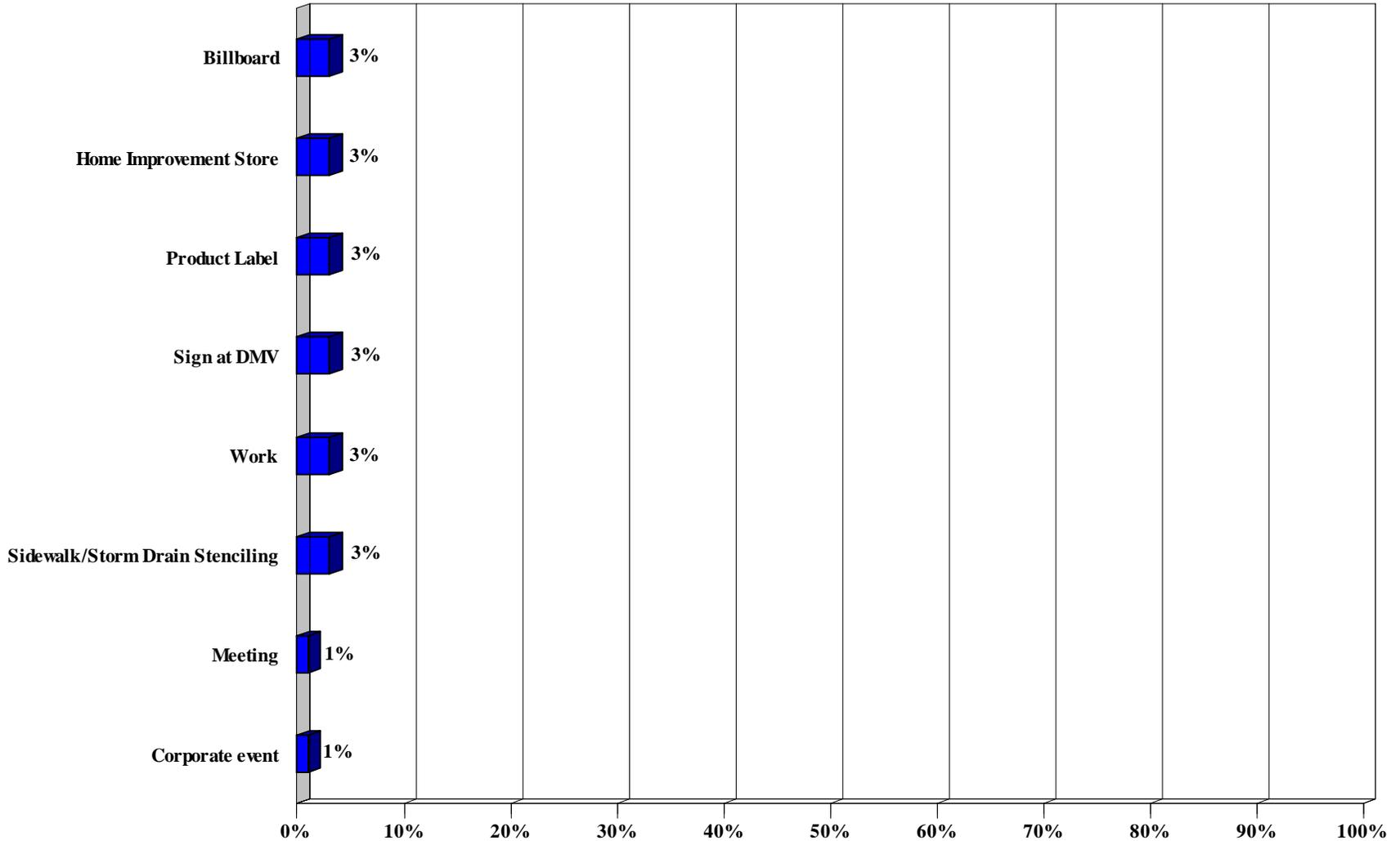


Base: Total Orange County residents who recall seeing, hearing or reading about the safe use of chemicals (N= 71)

Question: Where have you seen or heard something about sources of safe use of chemicals?

# Sources of Safe Use of Chemicals Advertising<sup>o</sup>

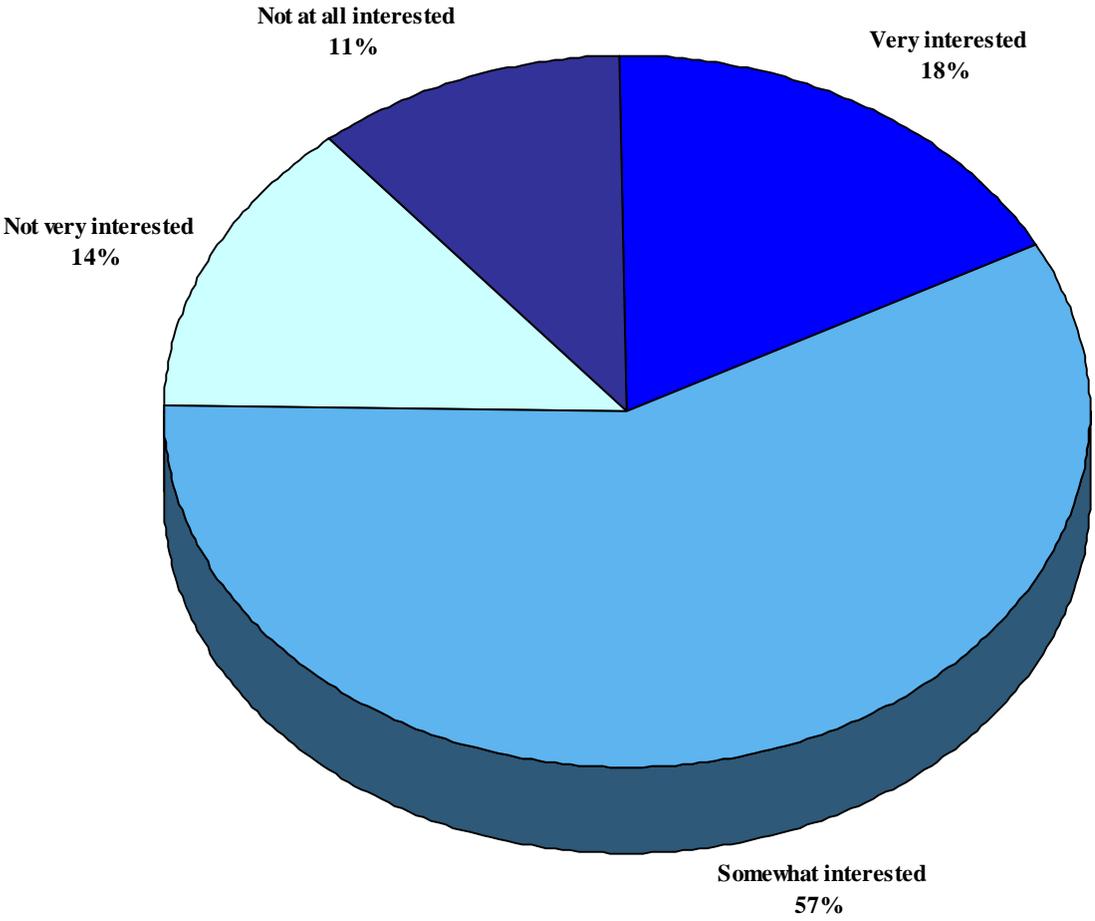
## - Unaided -<sup>o</sup>



Base: Total Orange County residents who recall seeing, hearing or reading about litter or trash (N= 71)

Question: Where have you seen or heard something about sources of safe use of chemicals?

# Interest in Learning About Water Pollution



Base: Total Orange County residents (N=207)  
Question: How interested are you in learning more about pollution of the ocean, river and lakes?

## MESSAGE RECALL/IMPACT<sup>o</sup>

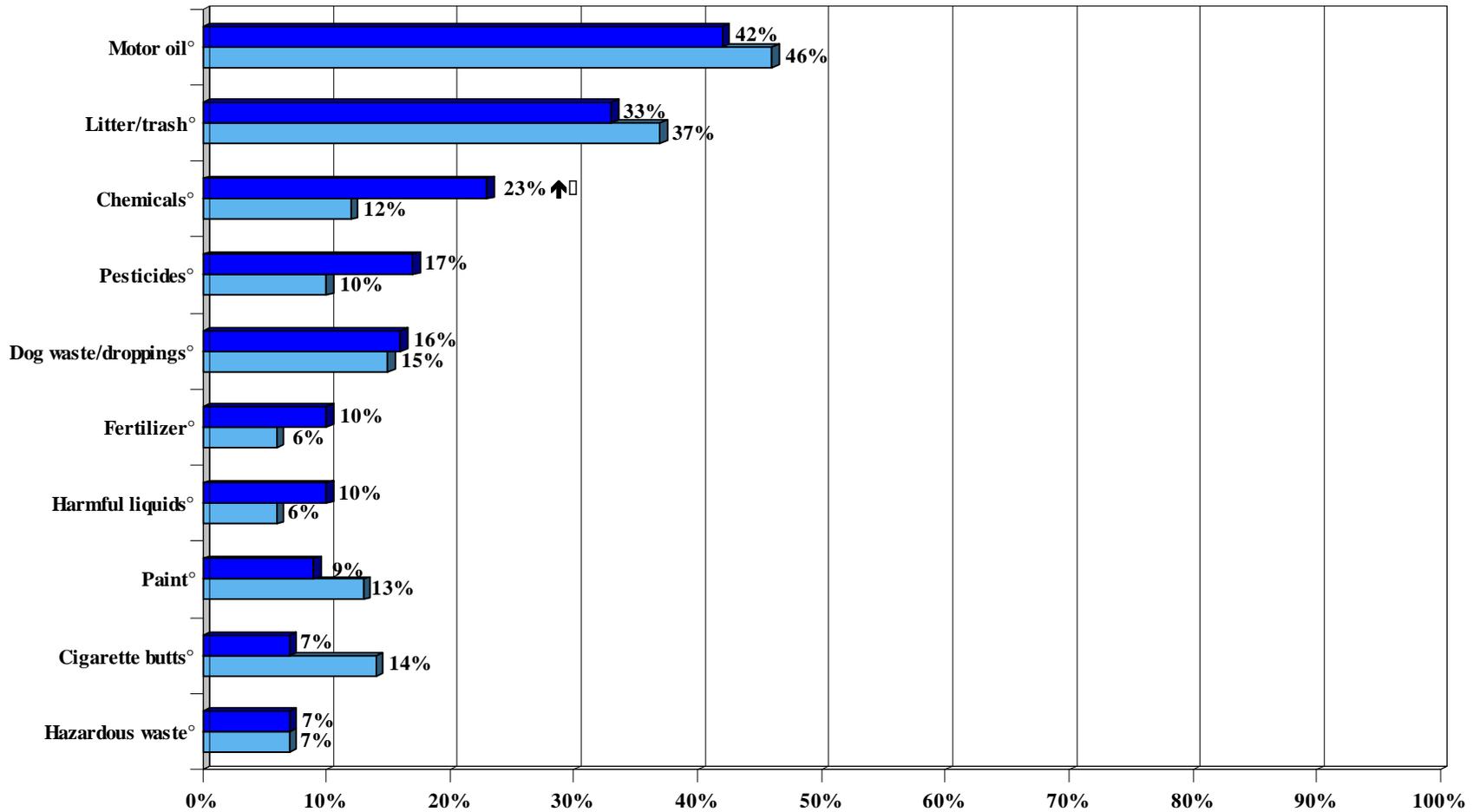
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- Messages addressing how pollution from runoff water **affects the ocean** are the **most memorable**; nearly half of those who recall stormwater messages (48%) recall this message unaided.
  - Half as many residents (24%) recall problems associated with pollution's effects on **marine life**.
  - **Health problems** (13%), **beach closures** (13%) and **beach poisoning** (9%) represent other key problems Orange County residents associate with stormwater pollution.
- Orange County and Los Angeles County residents are fairly **consistent** in their recollection of most key pollutants.
  - Residents from both counties who recall stormwater messages are most likely to recall **motor oil, litter/trash, pesticides** and **dog droppings** as pollutants causing problems.
  - **Chemicals** (23%) and **poison** (12%) are significantly **more likely** to be recalled by Orange County residents than Los Angeles County residents.

# Messages on Consequences of Storm Drain Pollution<sup>o</sup>

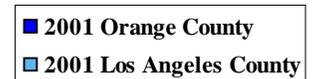
Question: What kind of problems are they saying are being caused by the things that are getting into the storm drains?	2001 Orange County
<p><b><u>Specific Messages Recalled</u></b></p> <ul style="list-style-type: none"> <li>Polluting the ocean 48%</li> <li>Killing/threatening marine life 24%</li> <li>Causing health problems 13%</li> <li>Closing beaches 13%</li> <li>Poisoning beaches 9%</li> <li>Clogging gutters/storm drains 7%</li> <li>Spreading disease 7%</li> <li>Flooding 5%</li> <li>Contaminating/Poisoning neighborhoods 5%</li> <li>Bacteria 2%</li> <li>Foul smells/odors 1%</li> <li>Making neighborhoods ugly, dirty 1%</li> <li>Polluting/affecting drinking water 1%</li> </ul>	
Base: Recall stormwater advertising	(88)

# Recall Specific Pollutants<sup>o</sup> Mentioned in the Advertising<sup>o</sup> - Unaided -<sup>o</sup>

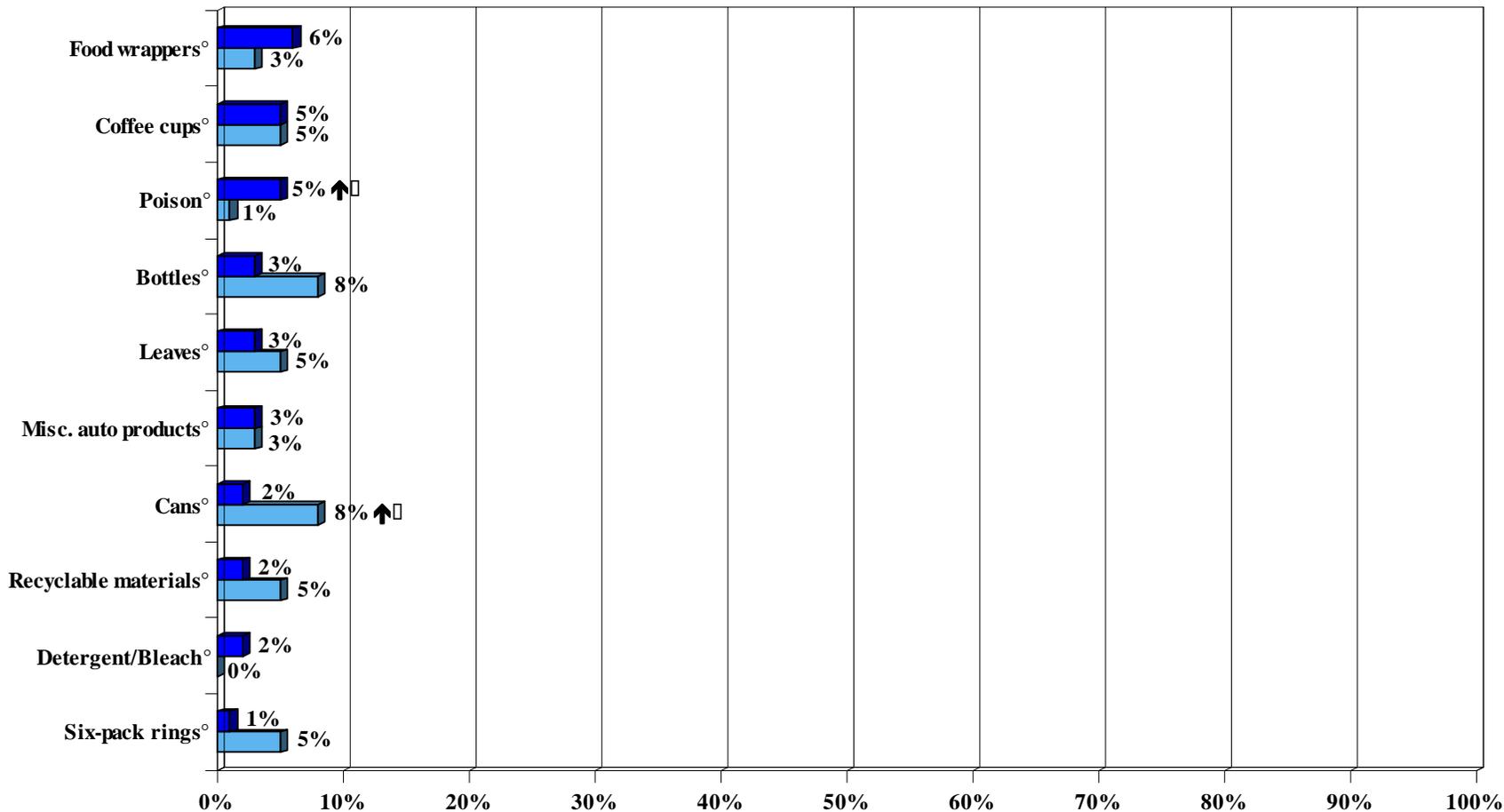


Base: Orange County residents (N=88) who recall stormwater advertising and Los Angeles County residents (N=404) who recall stormwater advertising

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



# Recall Specific Pollutants<sup>o</sup> Mentioned in the Advertising<sup>o</sup> - Unaided -<sup>o</sup>



Base: Orange County residents (N=88) who recall stormwater advertising and Los Angeles County residents (N=404) who recall stormwater advertising

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

■ 2001 Orange County  
■ 2001 Los Angeles County

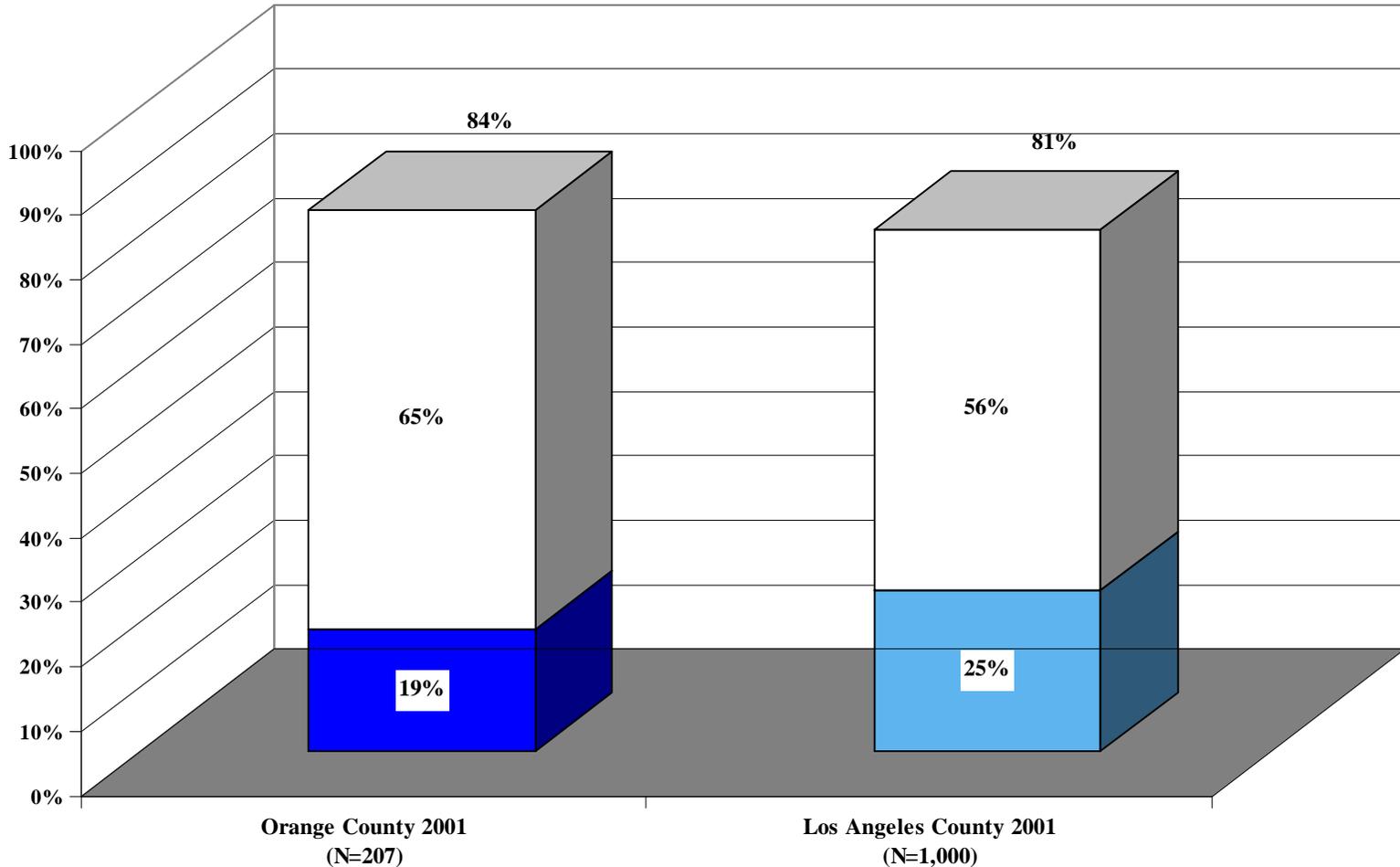
# POLLUTION CAUSES AND SYSTEMS<sup>o</sup>

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- The majority of Orange County residents claim to be at least **somewhat knowledgeable** about the causes of water pollution.
  - Eighty-four percent (84%) of Orange County residents are very or somewhat **knowledgeable** about the **causes of pollution** of the ocean, rivers and lakes. This level is essentially the same as Los Angeles County residents (81%).
  - About eight-in-ten (79%) Orange County residents correctly believe that it is **illegal** to deposit waste into storm drains.
- While a solid majority (67%) of Orange County residents **correctly** believe that stormwater **goes to the ocean untreated**, youths are most likely to misunderstand the role of the storm drain and sewage systems.
  - A **majority** (63%) of **Orange County youths** between 16 and 24 believe that water that flows through the storm drain system is tested and filtered.
  - Nearly seven-in-ten (67%) of these youths also believe that the storm drain system and the sewer system are part of the **same system**.
- Currently, Orange County residents are **most likely** to hold **businesses** (55%) responsible for pollution of the ocean, rivers and lakes and are **least likely** to hold **local governments** (41%) responsible.
  - Residents also see residents (49%), stormwater runoff (45%), and sewage plants (47%) as factors responsible for water pollution.

# Self-Reported Knowledge of Water Pollution Causes<sup>o</sup>

## - Very/Somewhat Knowledgeable -<sup>o</sup>

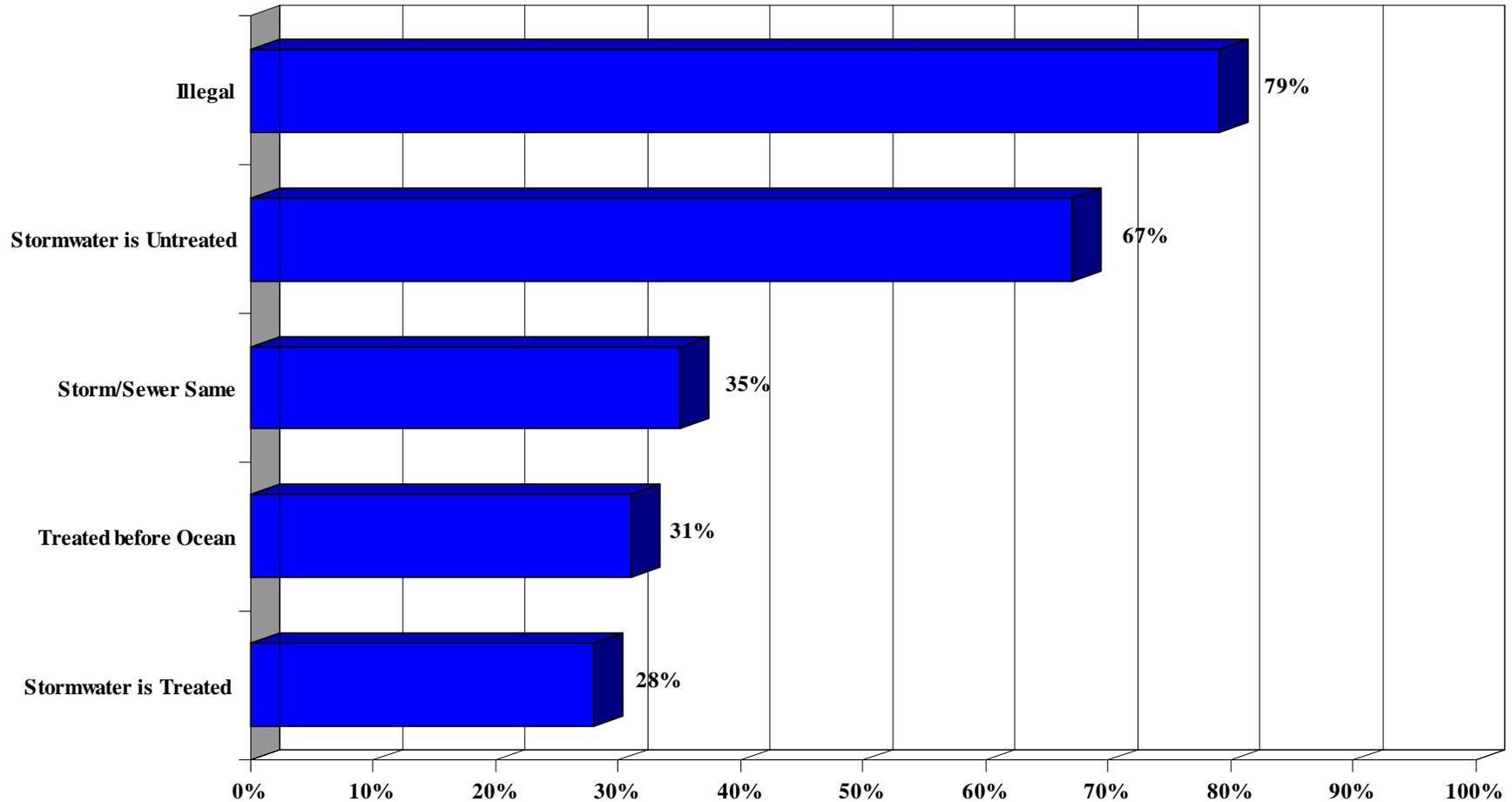


Base: Total Orange County and Los Angeles residents (see base sizes above)  
 Question: Compared to most people, how knowledgeable are you about what causes pollution of the ocean, rivers, and lakes?

□ Somewhat knowledgeable  
 ■ Very knowledgeable

# Summary of Stormwater Beliefs<sup>o</sup>

## - Percent Agreement -<sup>o</sup>



Base: Total Orange County residents (N=207)

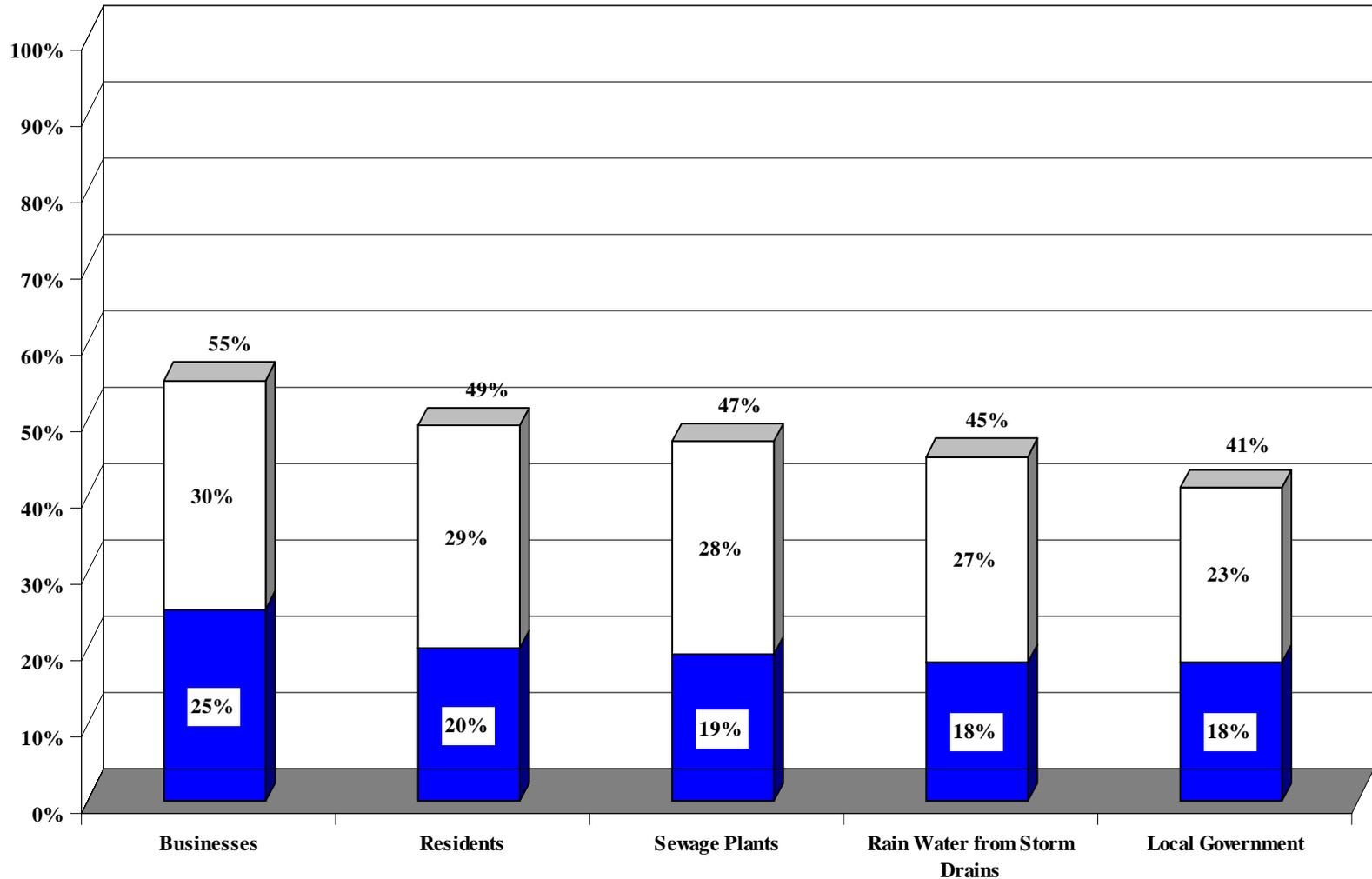
Question: It is illegal for anyone to throw, dispose of or allow anything other than rainwater into the storm drains?

Water that enters the storm drain goes to the ocean untreated? Storm drain and sewer part of same underground system?

Water that enters the storm drain goes to treatment plant then ocean? Water that enters the storm drain is treated?

# Extent of Responsibility for Pollution<sup>o</sup>

## - A Very Great Extent/A Great Extent -<sup>o</sup>



Base: Total Orange County residents (N= 207)<sup>o</sup>

Question: In your opinion, to what extent are the following responsible for pollution of the oceans, rivers and lakes?<sup>o</sup>

□ A Great Extent  
 ■ A Very Great Extent

# BEHAVIORS RELATED TO WATER POLLUTION °

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- Water polluting **behaviors** among Orange County residents are **nearly identical** in their patterns to those among Los Angeles County residents.
  - Because pollution-causing behavior is consistent between these somewhat varied socioeconomic and demographic regions, a public education campaign for Orange County may be able to rely on proven messages developed in the Los Angeles campaign.
- Over-watering **lawns** and hosing **leaves** or **dirt** into the street represent the most frequent stormwater-related offenses among Orange County residents.
  - The one-in-seven (14%) Orange County residents who admit to **over-watering lawns** do so an average of eleven (11) times a month and the one-in-seven (14%) who admit to **hosing leaves** or dirt into the street do so an average of three (3) times per month.
- Other top polluting behaviors include leaving **trash** on top of or beside an overflowing trash can (12%), dropping **cigarette butts** on the ground (11%) and **dropping litter** on the ground or out of a car window (11%).
  - Younger residents (16 to 24) are more likely to leave trash on top of **overflowing** cans as well as drop **litter** onto the ground or out a car window.
  - Men are more likely than women to drop **cigarette butts** on the ground and to drop **litter** on the ground or out of a car window.
- Twenty-nine percent (29%) of residents use lawn and garden **chemicals** including pesticides.
  - Twenty-five percent (25%) of Orange County residents use **manure** or **fertilizer** and typically do so about four (4) times a year.
  - Of the fifteen percent (15%) of Orange County residents who use **pesticides**, most do so two to three times a year.

# BEHAVIORS RELATED TO WATER POLLUTION °

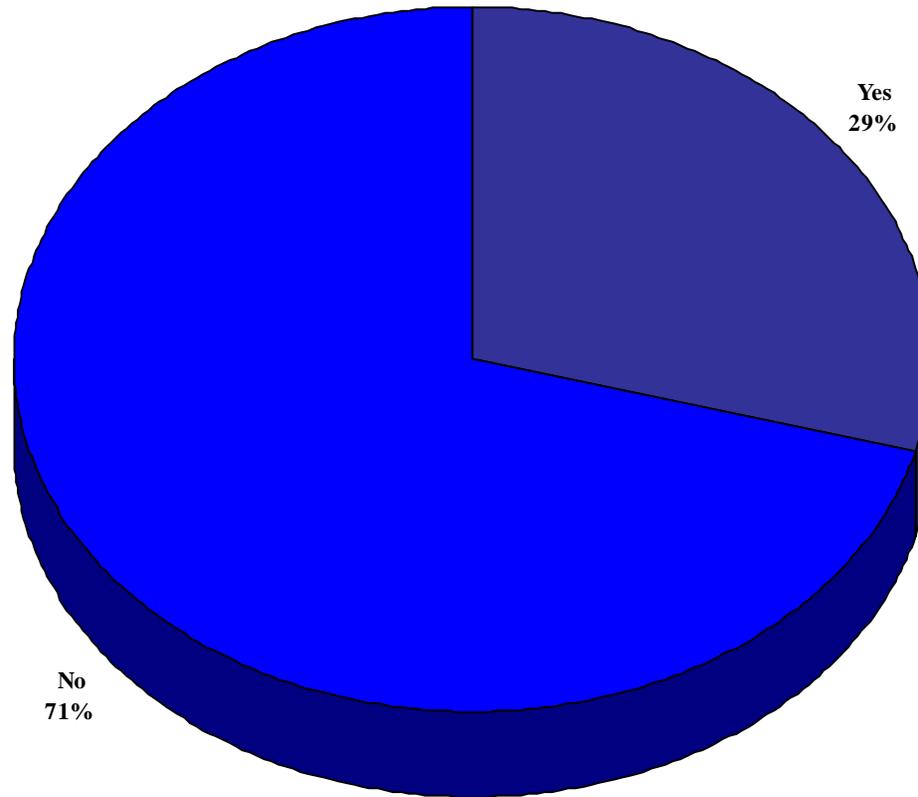
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- A slight majority (61%) of Orange County residents personally **wash** their own vehicles and typically do so two to three times a month.
  - While most (84%) of those who wash their **vehicles** believe that the water runs onto pavement, only four percent (4%) agree that the water **runs into the storm drain**.
  - This disconnect highlights a relatively **poor understanding** of how resident behavior affects the quality of runoff water.
- While residents do engage in **behavior** that threatens stormwater quality, a majority (79%) of Orange County residents do **realize** that it is illegal to “throw, dispose of or allow anything other than rainwater into storm drains.”
- Of those who use lawn and garden chemicals, a strong majority (76%) always **read** the instructions or directions before using the products.
- Over half (51%) of Orange County residents are willing to **change behavior** that contributes to pollution of the oceans, rivers and lakes.
  - Nearly nine-in-ten (88%) of residents probably or definitely would **change behavior** that “could contribute to pollution of the ocean, rivers and lakes.”

# Prevalence of Polluting/Potentially Polluting Behaviors<sup>o</sup>

Question: Which of these things have you personally done in the past month?	<b>2001 Orange County</b>	<b>2001 Los Angeles County</b>
<b><u>Polluting Behaviors in the Past Month</u></b>		
Water the lawn or garden and let the water run into the street	14%	13%
Hose leaves or dirt off a driveway or sidewalk into the street	14%	14%
Leave trash on top or beside overflowing trash can	12%	NA
Drop a cigarette butt on the ground	11%	13%
Drop litter on the ground or out a car window	11%	12%
Throw something in the gutter	3%	NA
Walk a dog without picking up the droppings	1%	3%
Empty a car ashtray into the street	0%	1%
Throw something in the drains near street corners	0%	NA
Base: Total Orange County and Los Angeles County residents	(207)	(1,000)

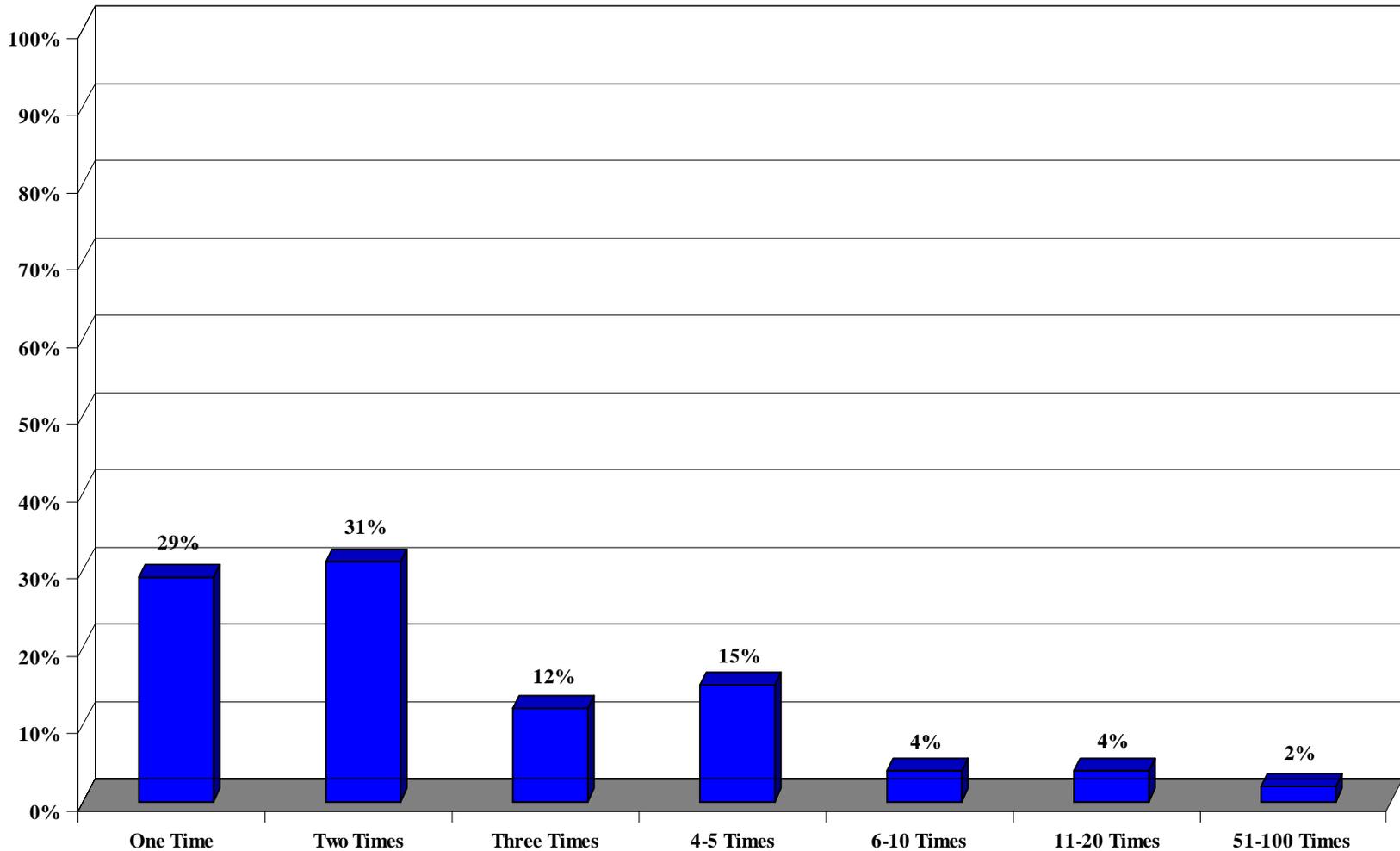
# Personally Use Lawn and Garden Chemicals°



Base: Total Orange County residents (N=207)°

Question: Do you personally use lawn and garden chemicals such as fertilizers and pesticides?°

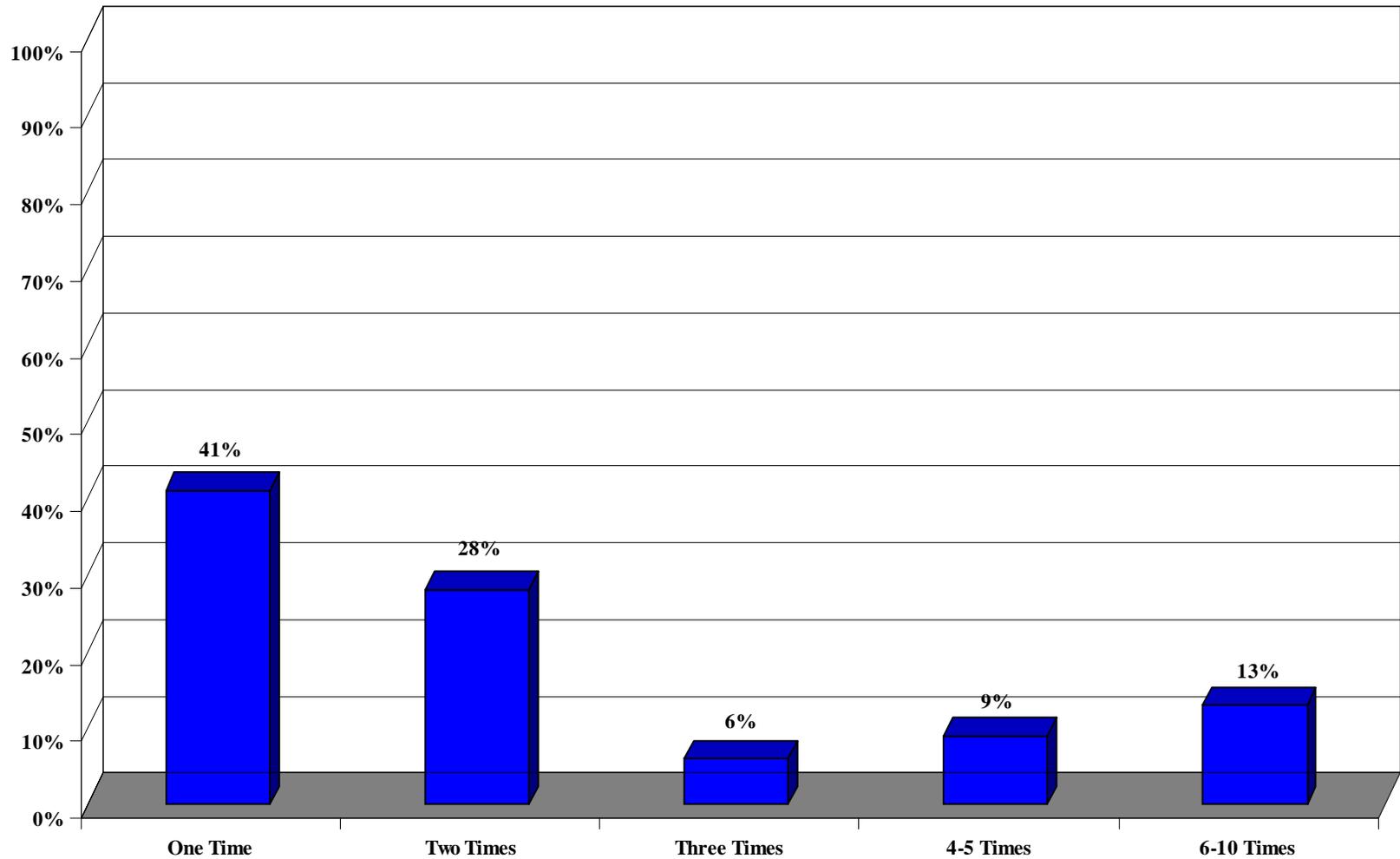
# Use of Manure or Fertilizer In the Past Year<sup>o</sup>



Base: Total Orange County residents who use manure or fertilizer (N= 52)

Question: How many times in the past year did you use manure or fertilizer?

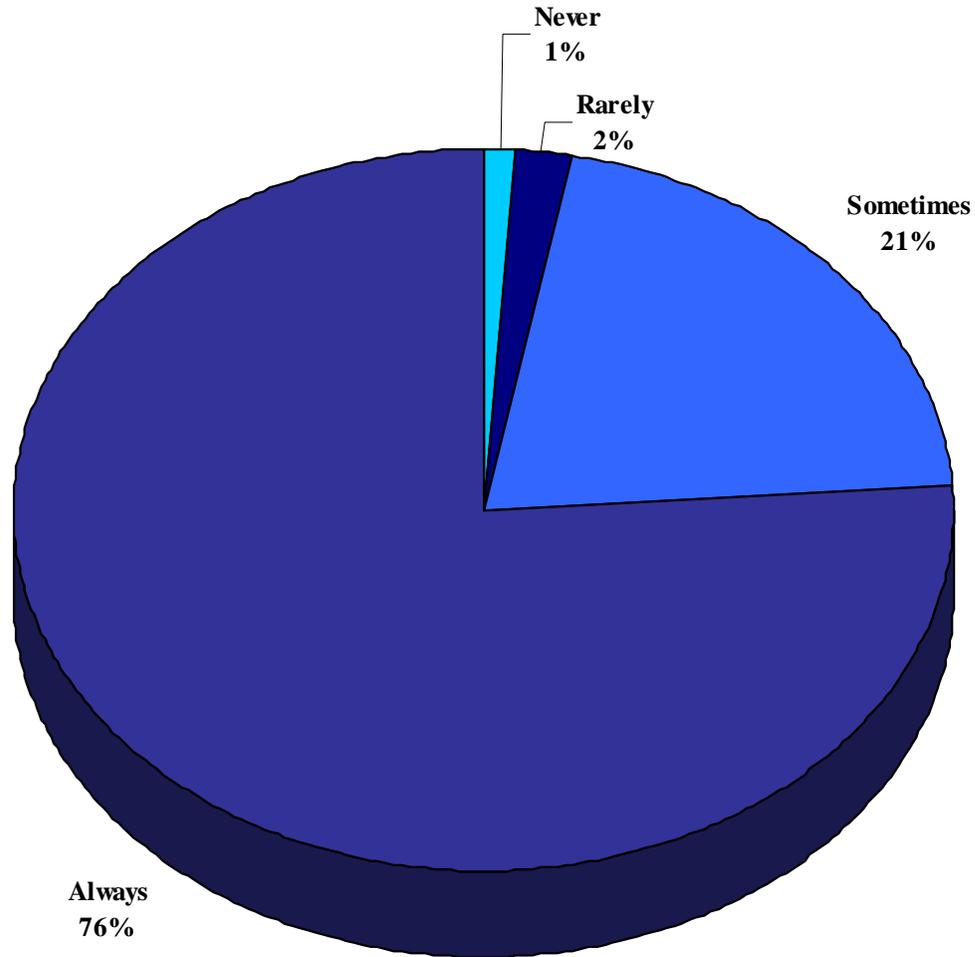
# Use of Pesticides In the Past Year<sup>o</sup>



Base: Total Orange County residents who used pesticide (N= 32)<sup>o</sup>

Question: How many times in the past year did you spray the garden or lawn with pesticides?<sup>o</sup>

# How Often Read Fertilizer or Pesticide Instructions



Base: Orange County residents who personally use lawn or garden chemicals (N=61)°

Question: When you use a fertilizer or pesticide product for the first time, how often do you read the instructions or directions?°

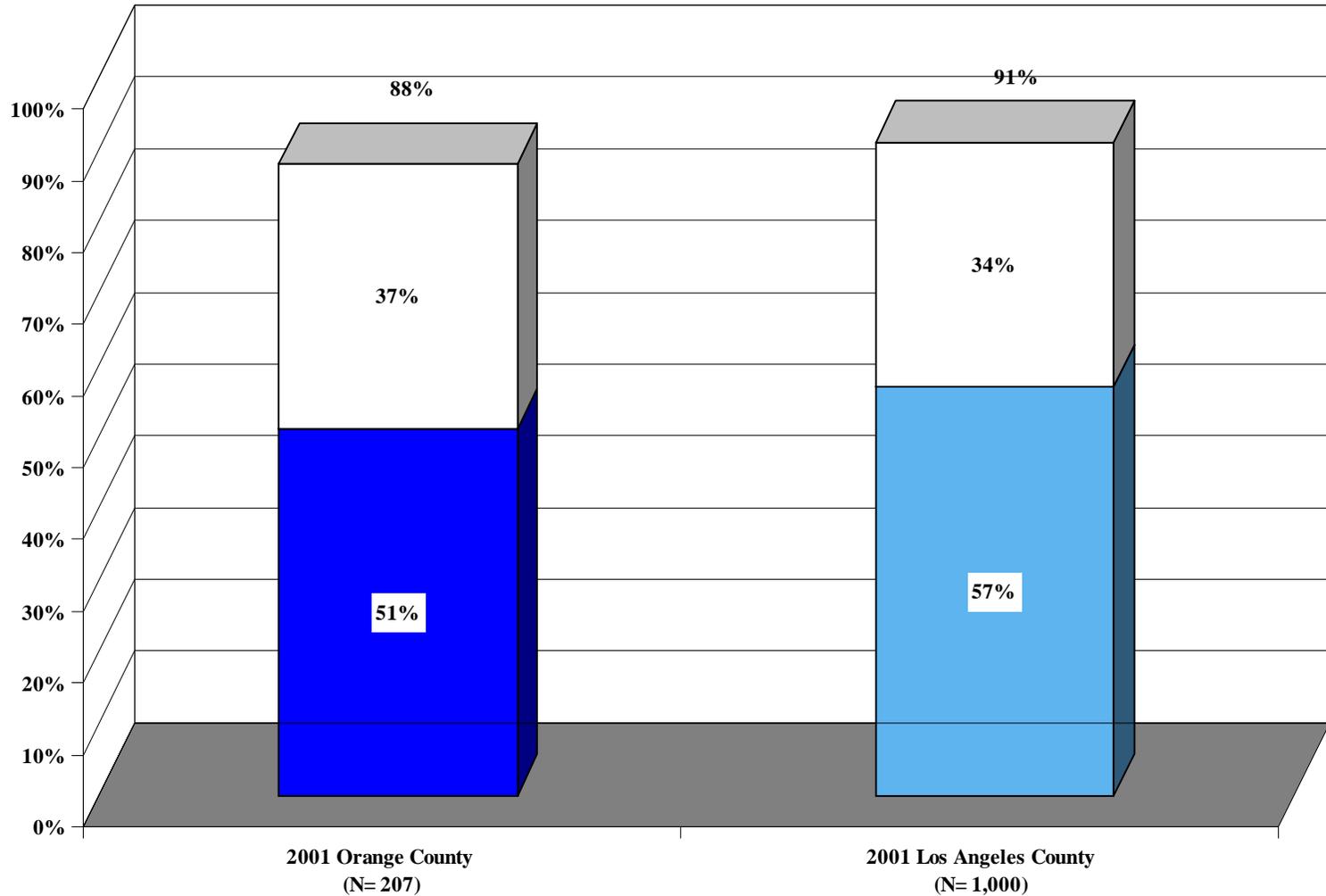
## Personally Wash a Vehicle<sup>o</sup>

Question: All together, how often would you say you personally wash a vehicle in a typical month, not including the times you take the vehicle to the car wash?	<b>2001 Orange County</b>
Less than once a month	16%
Once a month	19%
Twice a month	14%
Three times a month	3%
Four times a month	8%
More than four times a month	2%
Do not wash a vehicle personally	39%
Base: Orange County households with cars, trucks or motorcycles	(194)

## Where Water Runs After Wash<sup>o</sup>

Question: When you wash your vehicle, does the water run...?	<b>2001 Orange County</b>
Onto the pavement, like a driveway or street	84%
Onto grass	21%
Onto dirt	12%
Drain/storm drain	4%
Some place else	2%
Base: Households with cars, trucks or motorcycles who personally wash vehicle	(119)

# Willingness to Change Pollution-Causing Behaviors<sup>o</sup> - Definitely/Probably Would Change -<sup>o</sup>



Base: Total Orange County residents/Los Angeles County residents (see base sizes above)

Question: If you learned that something you were doing could contribute to pollution of the ocean, rivers and lakes, how willing would you be to change your behavior?

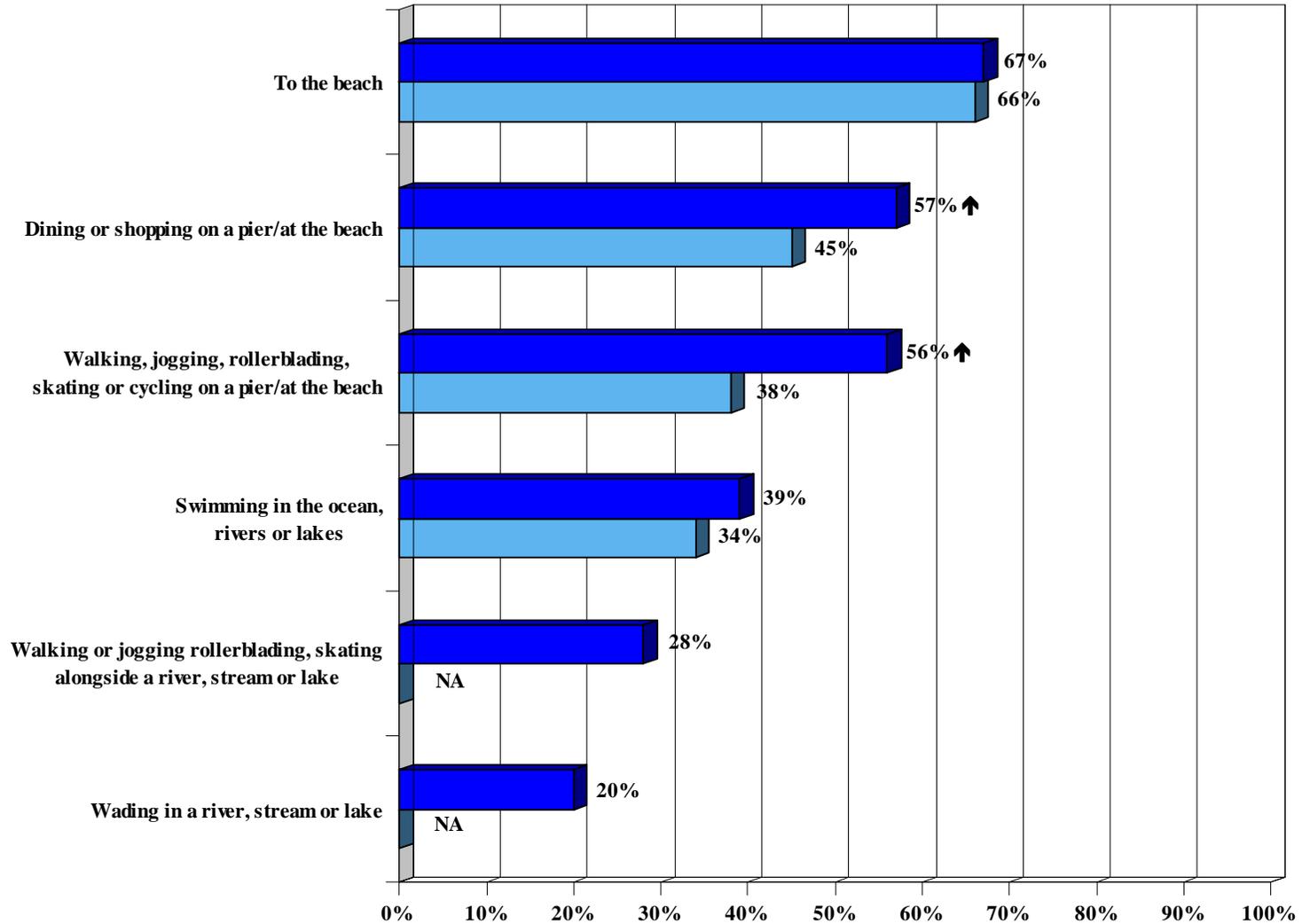
Probably Would Change  
 Definitely Would Change

# LIFESTYLE AND MEDIA CHARACTERISTICS<sup>o</sup>

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- Orange County residents are as likely as Los Angeles County residents to have **visited the beach** in the past year (67% versus 66%, respectively). Orange County residents are **more likely** to have **jet skied** (10% versus 6%) and **surf**ed (11% versus 6%).
  - Although Orange County residents do not visit the beach more frequently than their Los Angeles counterparts, they are significantly more likely to have been impacted by **beach closures** than Los Angeles residents (20% versus 12%, respectively).
- The top five beach and water activities enjoyed by Orange County residents include:
  - Dining or shopping at the beach (57%).
  - Walking, jogging, rollerblading, skating or cycling at the beach (56%).
  - Swimming in the ocean, river or lake (39%).
  - Walking, jogging, rollerblading, skating or cycling along a river, stream or lake (28%).
  - Wading in a river, stream or lake (20%).
- Orange County residents are significantly **more likely** to have **Internet** access than their Los Angeles County counterparts (88% versus 75%, respectively).
  - This high level of penetration indicates that Web outreach might represent a viable media vehicle for Orange County stormwater messages and communication.
- Just over half (53%) of Orange County residents read **newspapers** on a daily basis, while nearly ninety percent (89%) of residents listen to the radio.
  - Favorite **newspapers** include the *Orange County Register* (66% of residents), the *Los Angeles Times* (44%), the *Wall Street Journal* (5%), and *LA Opinion* (3%).
  - The most popular radio stations include KWFB (9%), KLOS (8%), KCBS (8%), KKBT (6%), KLSX (6%), KOST (6%), KZLA (6%), KSCA (5%), (Nueva), KABC (4%), KHHT (4%) and KMZT/KSSD (4%).

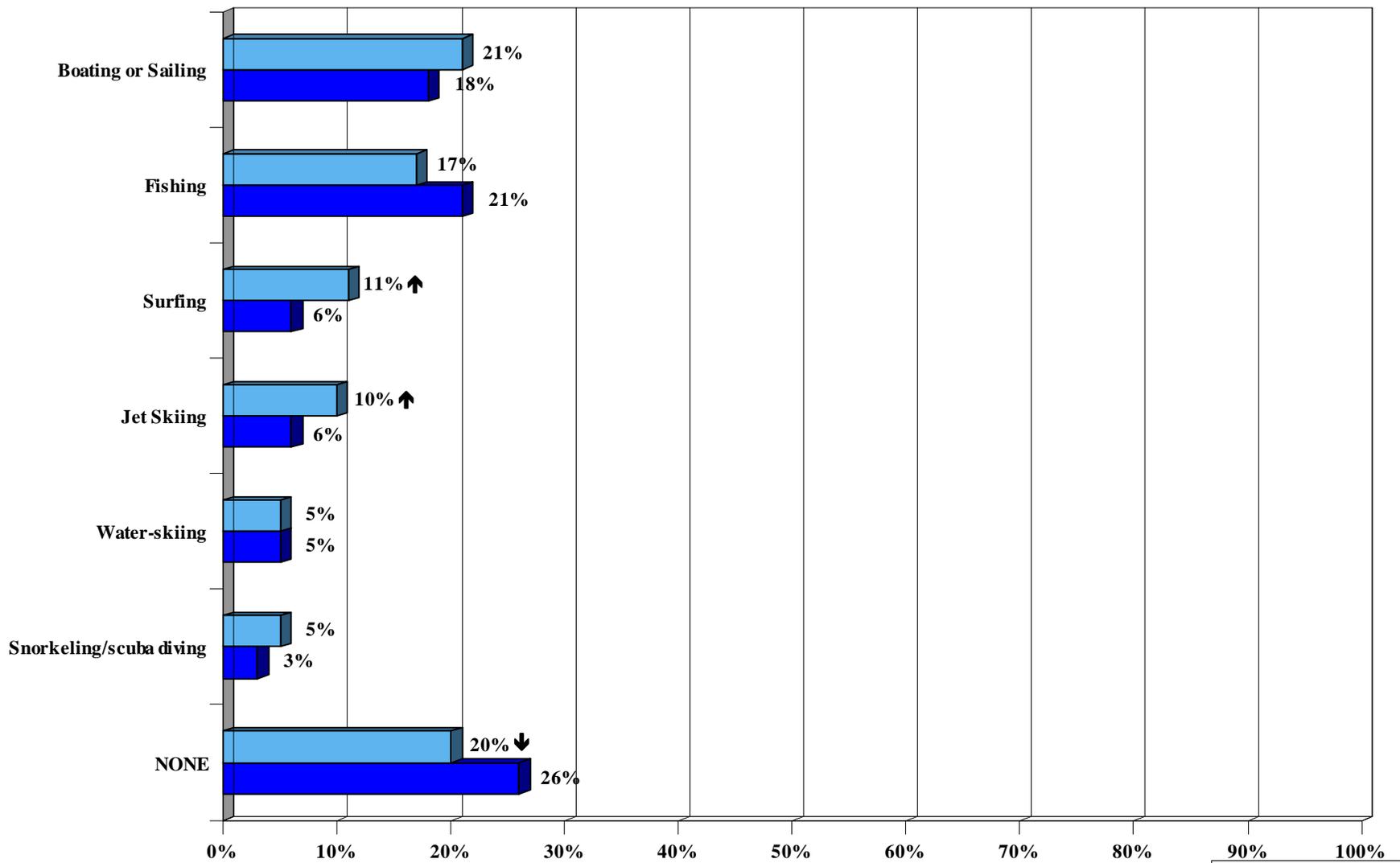
# Beach/Water Activities<sup>o</sup> - Past Year Participation -<sup>o</sup>



Base: Total Orange County residents (N= 207)/Total Los Angeles County residents (N= 1,000)  
 Questions: Which, if any, of the following things have you done in Southern California in the past year?

■ Orange County  
 ■ Los Angeles County

# Beach/Water Activities<sup>o</sup> - Past Year Participation -<sup>o</sup>

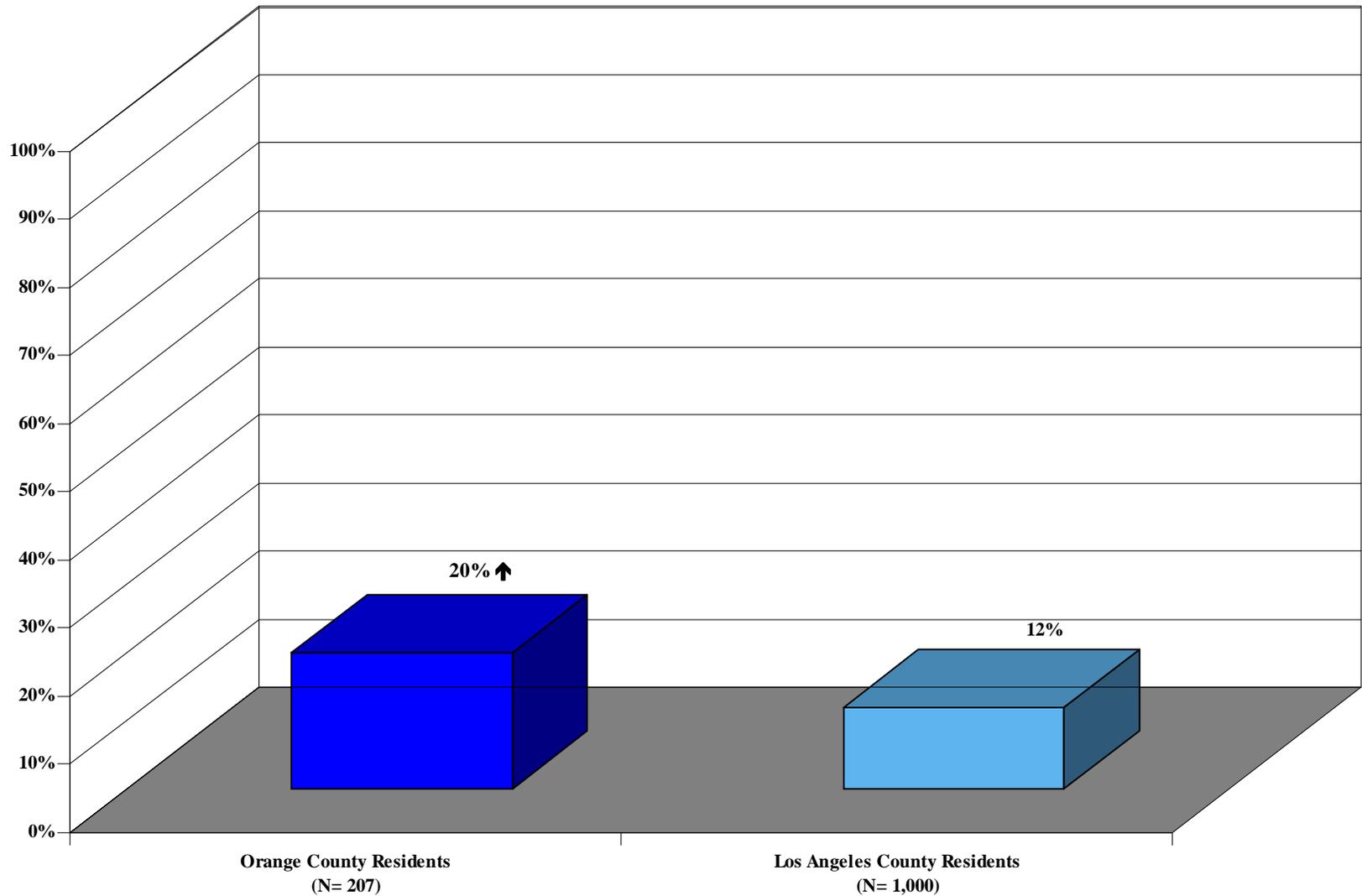


Base: Total Orange County residents (N= 207)/Total Los Angeles County residents (N= 1,000)

Questions: Which, if any, of the following things have you done in Southern California in the past year?

■ Orange County  
■ Los Angeles County

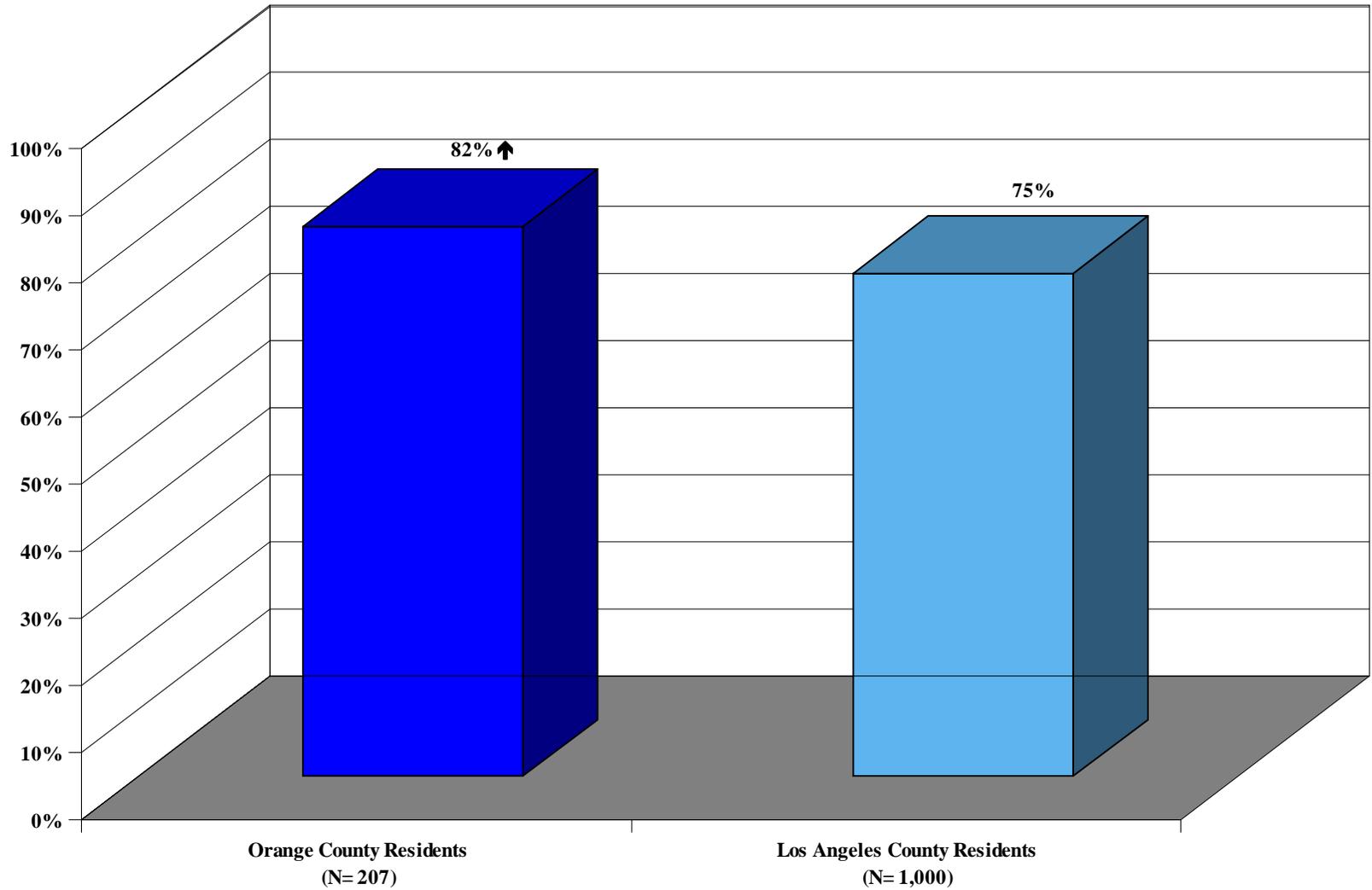
# Beach Closures°



Base: Total Orange County residents (N=207)°

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

# Internet Access<sup>o</sup>

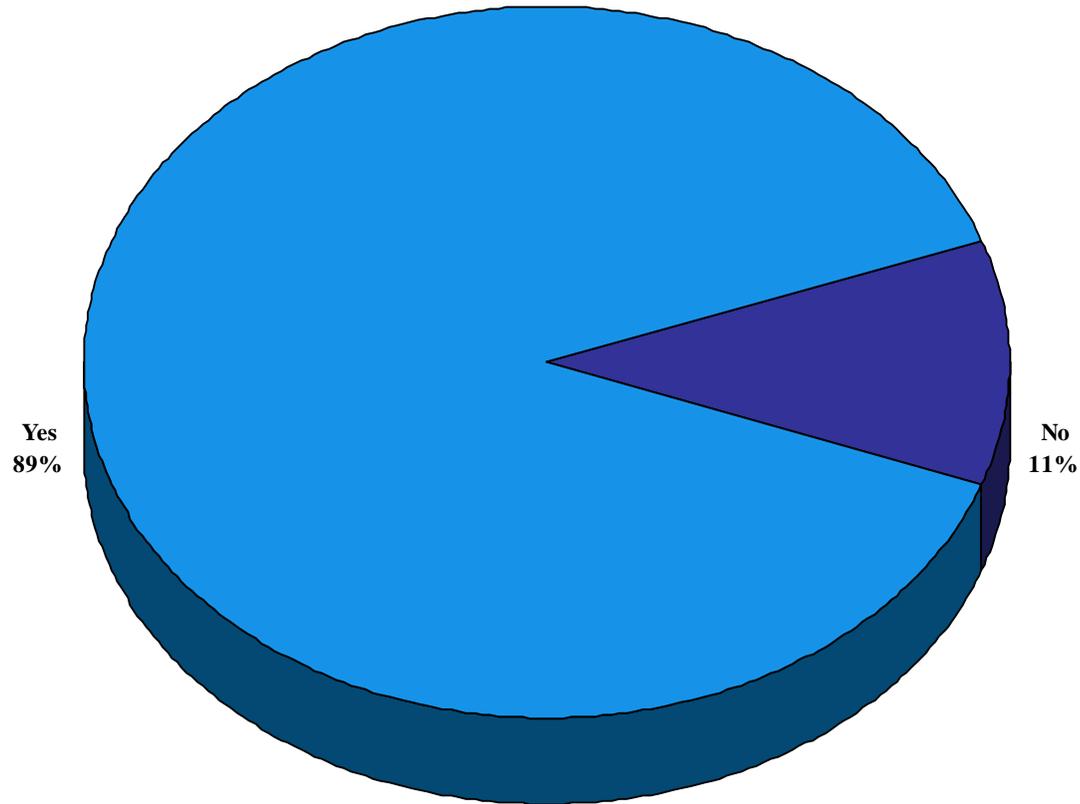


Base: Total residents (see base sizes above)  
Question: Do you have access to the Internet?

## Newspapers Read On a Regular Basis<sup>o</sup>

Question: Which newspapers, if any, do you read regularly?	2001 Orange County
<p><b><u>Newspapers</u></b></p> <ul style="list-style-type: none"> <li>Orange County Register 66%</li> <li>Los Angeles Times 44%</li> <li>Wall Street Journal 5%</li> <li>LA Opinion 3%</li> <li>Orange County Weekly 3%</li> <li>New York Times 3%</li> <li>Long Beach Press Telegram/Press Telegram 2%</li> <li>Daily Pilot 1%</li> <li>Free Community Weekly 1%</li> <li>Daily Star Progress 1%</li> <li>The Korean Central Daily 1%</li> </ul>	
Base: Recall stormwater advertising	(328)

# Listen to Radio<sup>o</sup>



Base: Total Orange County residents (N=207)

Question: Do you personally listen to the radio?

## Favorite Radio Stations<sup>o</sup>

Question: What three radio stations do you listen to most often?	<b>2001 Orange County</b>
KFWB	9%
KLOS	8%
KCBS	8%
KKBT	6%
KLSX	6%
KOST	6%
KZLA	6%
KSCA (Nueva)	5%
KABC	4%
KHHT	4%
KMZT/KSSD	4%
Base: Total Orange County households	(207)

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## DEMOGRAPHIC CHARACTERISTICS<sup>o</sup>

# Demographic Characteristics<sup>o</sup>

	2001 Orange County	2001 Los Angeles County
<b><u>Gender</u></b>		
Male	51%	52%
Female	49%	48%
<b><u>Age</u></b>		
16-18	8%	8%
19-24	7% ↓	14%
25-34	19%	21%
35-44	24%	22%
45-54	15%	14%
55-64	12%	9%
65+	15%	12%
Median (years)	41.8	38.4
<b><u>Education</u></b>		
Grade school or less	6%	5%
Some high school	13%	15%
High school graduate	15% ↓	24%
Trade or technical school	1%	2%
Some college	25%	23%
College graduate	27% ↑	19%
Some post graduate work	2%	3%
Post graduate degree	10%	8%
Base: Total residents (see base sizes)	(207)	(1,000)

# Demographic Characteristics<sup>o</sup>

	2001 Orange County	2001 Los Angeles County
<b><u>Marital Status</u></b>		
Married	53% ↑	39%
Single	32% ↓	41%
Divorced	8%	10%
Widowed	6%	6%
Separated	1%	3%
<b><u>Number of Children Under 18 in Household</u></b>		
None	42%	36%
One	20%	17%
Two	20%	16%
Three	14% ↑	8%
Four or more	3%	4%
<b><u>Number of Household Members</u></b>		
One	16%	18%
Two	22%	26%
Three	22%	18%
Four	18%	18%
Five	13%	11%
Six or more	9%	9%
Median	3.0	3.0
Base: Total residents (see base sizes)	(207)	(1,000)

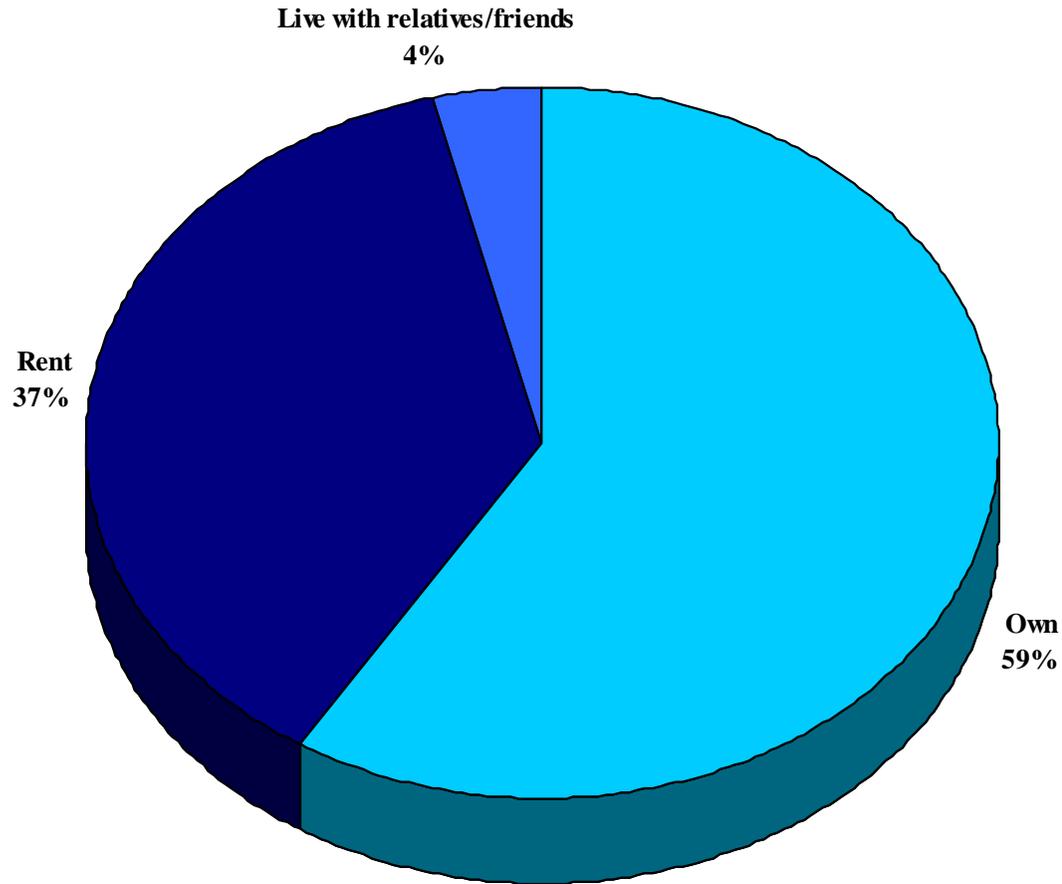
# Demographic Characteristics<sup>o</sup>

	2001 Orange County	2001 Los Angeles County
<b><u>Residence Type</u></b>		
Single family home	61%	57%
Two to nine unit apartment building	20% ↓	33%
Ten or more unit apartment building	12% ↑	7%
Duplex	4%	3%
Mobile home	3% ↑	0%
<b><u>Annual Household Income</u></b>		
Less than \$10,000	5%	6%
\$10,000 to under \$20,000	5% ↓	11%
\$20,000 to under \$30,000	12%	15%
\$30,000 to under \$40,000	7% ↓	13%
\$40,000 to under \$50,000	9%	12%
\$50,000 to under \$60,000	4%	6%
\$60,000 to under \$70,000	8%	6%
\$70,000 to under \$80,000	5%	5%
\$80,000 or more	28% ↑	13%
Median	\$58,700	\$38,700
<b><u>Employment Status</u></b>		
Employed full-time	47%	51%
Employed part-time	10%	15%
Retired	16%	13%
Not employed	14% ↓	21%
Base: Total residents (see base sizes)	(207)	(1,000)

## Demographic Characteristics<sup>o</sup>

	<b>2001 Orange County</b>	<b>2001 Los Angeles</b>
<b><u>Ethnicity</u></b>		
White/Anglo/Caucasian	63% ↑	36%
Hispanic/Latino/Spanish Origin	22% ↓	37%
Black/African American	0% ↓	13%
Asian/Oriental/Pacific Islander	12%	9%
Native American/Indian	0%	1%
<b><u>Length of Time Lived in Orange County</u></b>		
6 months to less than 5 years	13%	10%
5 years to less than 15 years	26% ↑	19%
15 years or longer	60% ↓	71%
Base: Total residents (see base sizes)	(207)	(1,000)

# Own or Rent Residence<sup>o</sup>



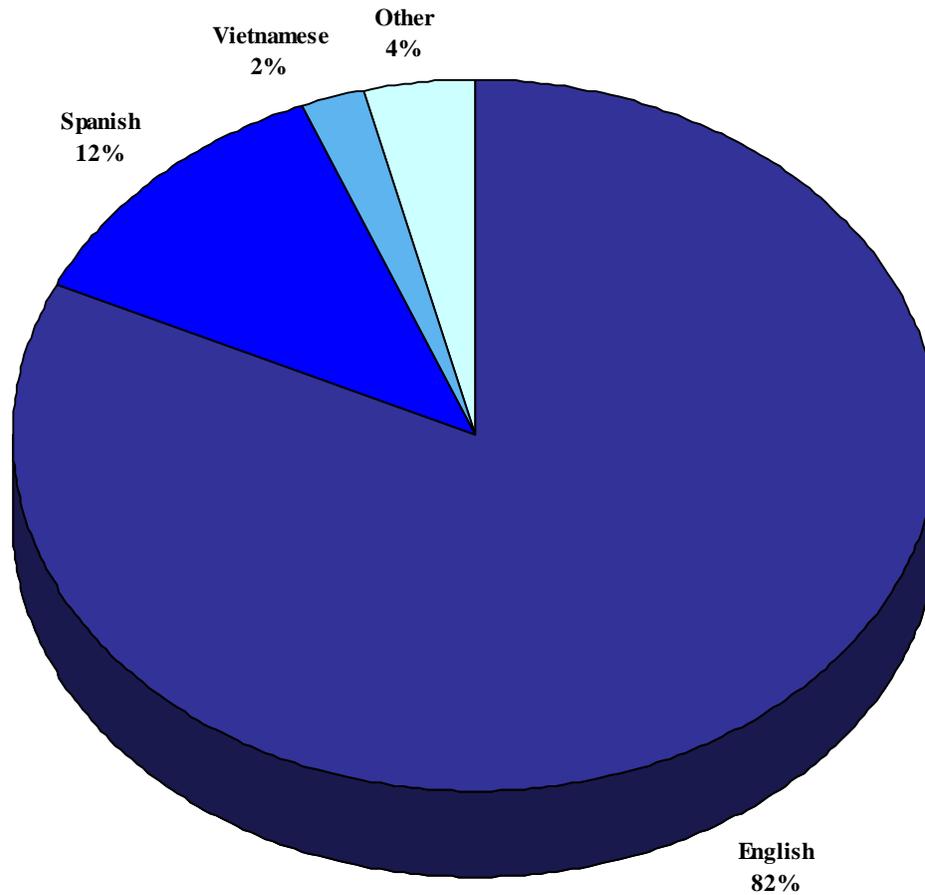
Base: Total Orange County residents (N=207)

Question: Do you own your own residence or do you rent?

## Household Belongings<sup>o</sup>

Question: Which of the following do you or does someone in your household have?	<b>2001 Orange County</b>
Car, truck or motorcycle	94%
Power tools	74%
A lawn	61%
<b>Garden (Net)</b>	<b>58%</b>
A flower garden	56%
A vegetable garden	21%
<b>Pets (Net)</b>	<b>46%</b>
A dog	31%
A cat	29%
Fishing equipment	36%
Surfboard or boogie board/bodyboard	32%
A pool or spa	31%
A boat, jet ski, wave runner or water ski	13%
Base: Total Orange County residents	(207)

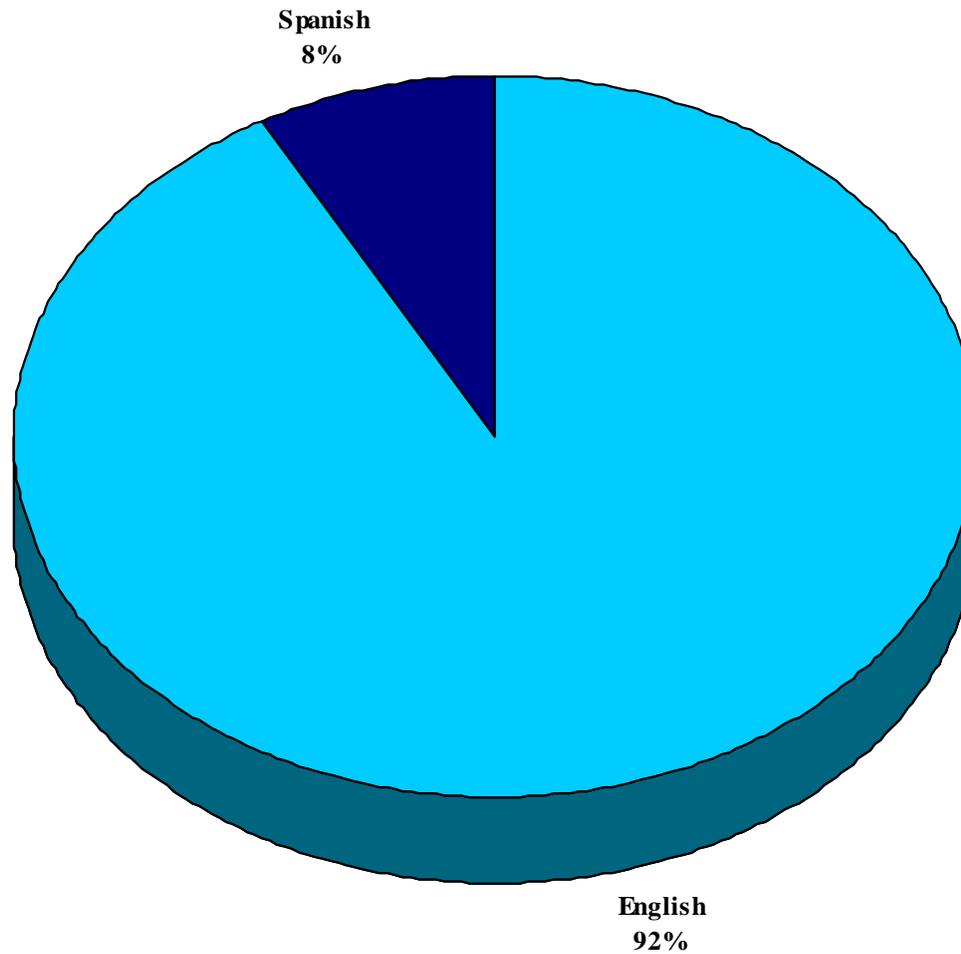
# Language Spoken In Home<sup>o</sup>



Base: Total Orange County residents (N=207)

Question: What language is spoken at home?

# Language of Interview<sup>o</sup>



Base: Total Orange County residents (N=207)

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# APPENDIX<sup>o</sup>