

STORMWATER POLLUTION: PUBLIC AWARENESS,  
ATTITUDES AND BEHAVIORS

FINAL SURVEY REPORT

DESIGNED AND CONDUCTED FOR THE  
COUNTY OF SAN LUIS OBISPO

JULY 2008

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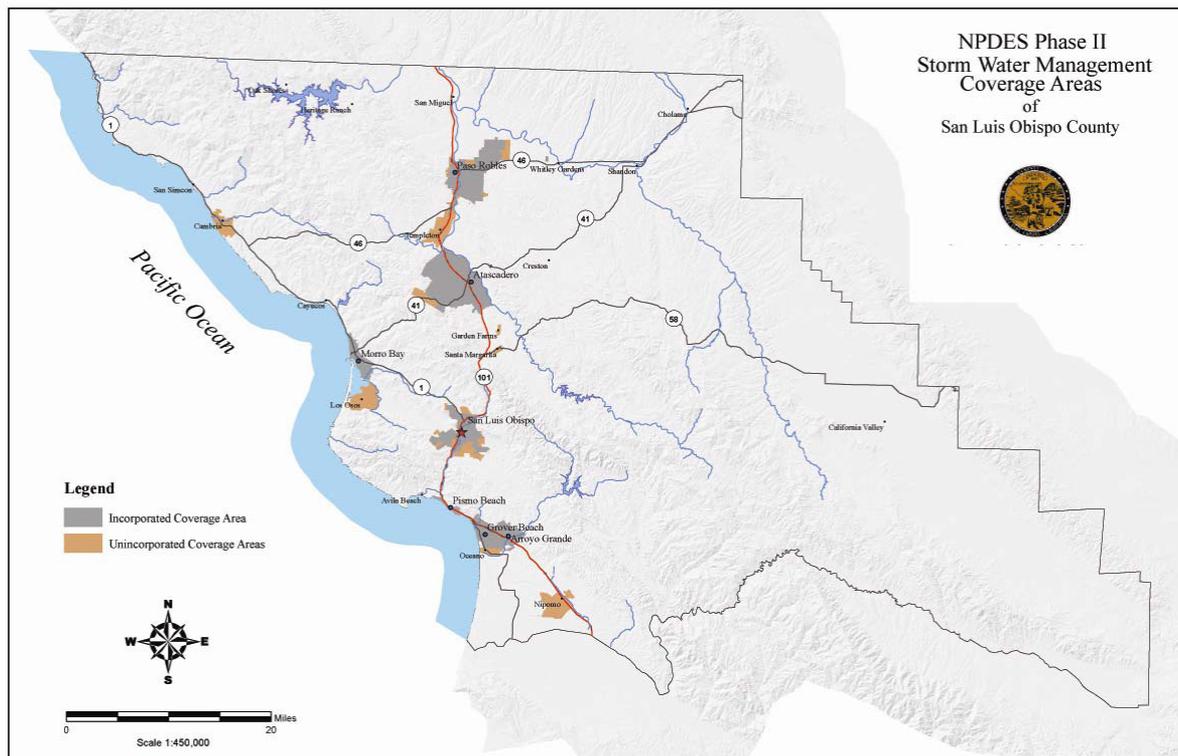
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## INTRODUCTION

Stormwater runoff is a leading cause of water pollution throughout California. To address this problem, the Environmental Protection Agency (EPA) National Pollutant Discharge Elimination System (NPDES) requires operators of small municipal separate storm sewer systems located in regulated areas to develop and implement stormwater management programs (SWMPs). In addition to detecting and eliminating sources of illicit discharges, regulating construction site runoff, and improving municipal operations as they pertain to stormwater quality, a key goal of the programs is to reduce stormwater pollution through public involvement, education and outreach.

Most of the unincorporated communities within San Luis Obispo County lack formal stormwater infrastructure. The County currently uses the natural hydrology of the watershed to convey stormwater runoff to receiving waters. In areas lacking natural pathways for stormwater runoff, the County uses retention/detention basins to slow runoff and allow for infiltration. Although the larger urban areas and municipalities within the County have been subject to stormwater regulation since 1990, recent changes have extended the regulations to areas with urban populations of 10,000 or more and construction activities affecting one acre or more of land disturbance. Figure 1 shows the regulated areas within the County.<sup>1</sup>

**FIGURE 1 STORMWATER MANAGEMENT COVERAGE AREAS - SAN LUIS OBISPO COUNTY**



1. See *National Pollutant Discharge Elimination System Phase II, Stormwater Management Program, County of San Luis Obispo*, April 2007. The information contained in this introduction, and the map, were provided in this document.

The County of San Luis Obispo has developed an integrated stormwater management program that relies heavily on public education and outreach, public participation, and involvement to prevent pollution problems at the source. The program employs television and radio public service announcements, an educational stormwater display at public events, an informational website, and classroom education programs. The County's program is focused on the unincorporated areas of Baywood-Los Osos, Nipomo, Cambria, Templeton, Santa Margarita, Garden Farms and Oceano, as well as the urban fringes surrounding the cities of San Luis Obispo, Atascadero and Paso Robles. Regulated incorporated municipalities including the seven cities located with the County maintain separate (but coordinated) stormwater management programs.

**MOTIVATION FOR RESEARCH** The over-arching purpose of this study was to establish statistically reliable, baseline measures of the public's awareness, attitudes and behaviors as they pertain to stormwater pollution and the County's public education efforts. To what extent do residents of the unincorporated coverage areas recognize stormwater pollution to be a problem in the County? How informed are they about the sources of stormwater pollution, as well as the actions they can take to prevent it? What actions have they taken—or are they willing to take—to prevent stormwater pollution? And do they recall being exposed to the County's public education efforts related to stormwater pollution? Answers to questions like these provide benchmark indicators of the public's awareness, attitudes and behaviors as they relate to stormwater pollution, can be used to track the effectiveness of the County's public outreach efforts in the future, and can serve to help refine and revise the public outreach components of the County's program.

**OVERVIEW OF METHODOLOGY** A full description of the methodology used for this study is included later in this report (see *Methodology* on page 31). In brief, a total of 400 randomly selected adults in the regulated communities of Cambria, Templeton, Los Osos/Baywood Park, Oceano and Nipomo participated in the survey between June 6 and June 11, 2008.<sup>2</sup> The telephone interviews were conducted during weekday evenings (5:30PM to 9PM) and on weekends (10AM to 5PM). It is standard practice not to call during the day on weekdays because most working adults are unavailable and thus calling during those hours would bias the sample. The interviews averaged 15 minutes in length.

**ORGANIZATION OF REPORT** This report is designed to meet the needs of readers who prefer a summary of the findings as well as those who are interested in the details of the results. For those who seek an overview of the findings, the sections titled *Just the Facts* and *Conclusions* are for you. They provide a summary of the most important factual findings of the survey in bullet-point format and a discussion of their implications. For the interested reader, this section is followed by a more detailed question-by-question discussion of the results from the survey by topic area (see *Table of Contents*), as well as a description of the methodology employed for collecting and analyzing the data. And, for the truly ambitious reader, the questionnaire used for

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2. Only those who reside in ZIP codes 93428, 93465, 93402, 93412, 93445, 93475, and 93444 were eligible to participate in the study. ZIP code 93453 was not included because only a very small percentage of the population in said ZIP code resides within a regulated area, and attempting to screen to find these individuals would be cost-prohibitive and time-consuming using random digit dial sampling methodologies (see *Sample* on page 31 for more on the sampling methodology). For the same reasons -- and due to their proximity to a regulated municipality -- residents in the urban fringes were also not included in the sample.

the interviews is contained at the back of this report, and a complete set of crosstabulations for the survey results is contained in Appendix A, which is bound separately.

**ACKNOWLEDGEMENTS** True North thanks Jill Falcone at the County of San Luis Obispo and John Bliss at SCI Consulting Group for the opportunity to conduct the study and for contributing their valuable input during the design stage of this survey. Their collective experience, insight, and local knowledge improved the overall quality of the research presented here.

**DISCLAIMER** The statements and conclusions in this report are those of the authors (Dr. Timothy McLarney and Richard Sarles) at True North Research, Inc. and not necessarily those of the County of San Luis Obispo. Any errors and omissions are the responsibility of the authors.

**ABOUT TRUE NORTH** True North is a full-service survey research firm that is dedicated to providing public agencies with a clear understanding of the values, perceptions, priorities and concerns of their residents and customers. Through designing and implementing scientific surveys, focus groups and one-on-one interviews, as well as expert interpretation of the findings, True North helps its clients to move with confidence when making strategic decisions in a variety of areas—such as planning, policy evaluation, performance management, organizational development, establishing fiscal priorities, and developing effective public information campaigns. During their careers, Dr. McLarney (President) and Mr. Sarles (Principal Researcher) have designed and conducted over 400 survey research studies for public agencies, including more than 300 studies for California cities, counties and special districts.



## JUST THE FACTS

The following is an outline of the main factual findings from the resident survey. For the reader's convenience, we have organized the findings according to the section titles used in the body of this report. Thus, to learn more about a particular finding, simply turn to the appropriate report section.

### IMPORTANCE OF ISSUES

- When provided with a list of six issues and asked to rate the importance of each, protecting water quality received the highest percentage of respondents indicating that the issue was either extremely or very important (91%), followed by improving public education (82%), preserving open space (67%), and reducing global warming (65%).

### KNOWLEDGE & AWARENESS OF STORMWATER POLLUTION

- Nearly all respondents (90%) were in agreement that local governments, businesses and residents are *all* responsible for reducing stormwater pollution.
- Approximately half (53%) of residents correctly identified stormwater runoff as a leading cause of water pollution in San Luis Obispo County.
- A surprisingly large percentage of residents believe incorrectly that water that flows through street gutters and storm drains goes through a treatment facility before being released into the ocean (40%).
- Nearly one-third (31%) of residents mistakenly believe that stormwater pollution is primarily caused by commercial businesses.
- Approximately 17% of residents within regulated areas were of the opinion that they live far enough away from the ocean that they don't have an impact on ocean water quality.
- When asked to describe how informed they *feel* about the causes of stormwater pollution, approximately 16% felt they were well-informed, 37% somewhat informed, and 31% indicated that they were slightly informed about stormwater pollution. An additional 15% indicated that they were not at all informed about the causes of stormwater pollution, whereas 1% were unsure.
- More than three-quarters (77%) of respondents agreed that residents can take actions that will reduce stormwater pollution, whereas 14% felt that residents could not impact stormwater pollution and 8% were unsure.
- The most commonly mentioned action that could be taken in the interest of reducing stormwater pollution was cleaning up trash near gutters (26%), followed by properly disposing of hazardous waste (20%), and using fewer toxic chemicals for gardening (20%). Other actions that were mentioned by at least 10% of respondents who received this question included recycling used motor oil (15%), not washing a car in the driveway or in the street (13%), reusing/recycling (13%), and using fewer toxic chemicals for household cleaning (12%).

### REDUCING STORMWATER POLLUTION: PERSONAL BEHAVIOR

- Just over one-third (36%) of adult residents indicated that they had taken at least one action during the past 12 months with the intent of reducing stormwater pollution, whereas 61% indicated that they had not taken such action and 3% were unsure.
- When asked in an open-ended manner to describe the actions that they took to reduce stormwater pollution during the past 12 months, 22% reported they avoided washing a car

in their driveway or on the street, 19% cleaned-up trash near the gutter, 19% indicated that they reused/recycled products, and 17% recycled their used motor oil. Other actions reported by at least 10% of respondents who received this question included properly disposing of hazardous waste (16%), and using fewer toxic chemicals for household cleaning (13%) and gardening (13%).

- Nearly two-thirds (64%) of respondents indicated that they were willing to take actions to reduce stormwater pollution in the upcoming 12 months, whereas 24% were unwilling and 11% were unsure.
- When asked to identify how difficult it would be for them to engage in a variety of activities for the purpose of reducing stormwater pollution, keeping trash and recycling bins covered to prevent litter from blowing into the street, recycling used motor oil, and using a broom to clean the driveway or sidewalk rather than spraying it with a hose were perceived as the *least* difficult actions to take in the interest of reducing stormwater pollution. At the other end of the spectrum, vegetating bare spots in the yard so that soil does not wash away, fixing one's car immediately if it leaves oil stains on the driveway, and disposing of household hazardous wastes by taking them to a recycling center were—relatively speaking—perceived to be the most difficult actions to take.

## POLLUTION-CAUSING ACTIVITIES

- The stormwater pollution-causing activities that are witnessed most frequently at the neighborhood level are cars being washed in driveways and on the street, dog waste being left in the street, on the sidewalk, or in the gutter, people washing or blowing yard waste into the street or gutter, and driveways with fresh oil spots.
- Just two activities stood out as being very *uncommon*: people pouring or spilling motor oil into the street or on the ground, and residents washing paint brushes in the street or gutter.
- Seventeen percent (17%) of respondents indicated that—prior to taking the survey—they were aware that there is a hotline residents can call to report activities that are causing stormwater pollution.
- Over two-thirds (69%) of respondents offered that they would be willing to dial an anonymous hotline in the event someone in their neighborhood was causing stormwater pollution so that the person could be notified to stop the activity.

## MEDIA & MESSAGE EXPOSURE

- Just over one-third (38%) of respondents recalled being exposed to news stories and/or public service announcements related to stormwater pollution in the three months prior to the interview.
- By far the most common source for stormwater-related messages was television—being mentioned by two-thirds (66%) of respondents who recalled encountering a public service announcement or news story. Approximately one-quarter (26%) mentioned that they encountered the information in a newspaper, whereas 13% recalled hearing a radio spot related to stormwater pollution. No other individual sources were mentioned by at least 5% of respondents.
- Among all respondents, approximately 8% were able to name Sammy the Steelhead as the character in local stormwater public service announcements *without prompting*, and an additional 9% described Sammy as a trout or fish. An additional one-third (34%) of respondents were not able to name or describe Sammy initially, but with prompting did recall encountering a public service announcement that featured Sammy. Half (50%) of those sur-

vayed did not recall encountering a public service announcement featuring Sammy, even with prompting.



## CONCLUSIONS

As noted in the *Introduction*, this study was designed to establish statistically reliable, baseline measures of the public's awareness, attitudes and behaviors as they pertain to stormwater pollution and the County's public education efforts. As such, it provides a means of measuring and tracking the effectiveness of the County's public outreach efforts, and can serve to help refine and revise the public outreach components of the County's stormwater management program. Whereas subsequent sections of this report are devoted to conveying the detailed results of the study, in this section we attempt to 'see the forest through the trees' and note how the collective results answer some of the key questions that motivated the research.

*How prevalent are stormwater pollution-causing activities at the neighborhood level?*

Stormwater pollution-causing activities appear to occur on a regular basis in many neighborhoods in the regulated unincorporated areas of the County. Nearly one-third of respondents reported that they witness cars being washed in driveways and on the street (30%) and dog waste being left in the street, on the sidewalk, or in the gutter (28%) at least once per week. People washing or blowing yard waste into the street or gutter (25%) and driveways with fresh oil spots (21%) are also weekly occurrences in many neighborhoods.

Of the nine pollution-causing activities tested, at least one-third of respondents reported witnessing seven of the activities on a monthly basis in their neighborhoods. Just two activities stood out as being very uncommon (or at least rarely witnessed): people pouring or spilling motor oil into the street or on the ground (2% weekly) and washing paint brushes in the street or gutter (1% weekly).

*How important is stormwater pollution as an issue to residents?*

One of the more striking patterns in the survey results was that there appears to be a separation in the minds of many residents between the general issue of protecting water quality and the more specific issue of reducing stormwater pollution. Whereas protecting water quality was ranked as the *most* important issue among the six issues tested in the study (91% rated it as extremely or very important), reducing stormwater pollution was ranked as the *least* important issue (58% extremely or very important).

This finding highlights both an opportunity and a challenge for the County's stormwater management program. To the extent that the program can tie these two issues together in the minds of residents, the perceived importance of stormwater pollution will be enhanced -- which in turn can motivate additional pollution-reducing activities on the part of the public. It may be a matter of semantics. By simply changing the way in which the program is described and using the more general language of protecting water quality when promoting the *same* actions that were previously linked to the more specific issue of stormwater quality, the program may have a wider appeal.

*How informed are residents about the sources of stormwater pollution, as well as the actions they can take to prevent it?*

The results of the survey present a mixed picture with respect to resident awareness and knowledge about stormwater pollution in the County. On the positive side, residents appear reasonably well-informed about the types of activities they can engage in to reduce stormwater pollution. Overall, 77% of respondents agreed that residents can take actions to reduce stormwater pollution, and the list of activities offered by residents was diverse and demonstrated that most residents could name multiple activities.

When it comes to the specific causes and effects of stormwater pollution, however, a substantial percentage of residents do not have their facts straight. Just half (53%) of respondents correctly identified stormwater runoff as a leading cause of water pollution in San Luis Obispo County. A surprisingly large percentage believed incorrectly that water that flows through street gutters and storm drains goes through a treatment facility before being released into the ocean (40%), and nearly one-third (31%) of respondents mistakenly believed that stormwater pollution is primarily caused by commercial businesses. Approximately 17% of residents within regulated areas were also of the opinion that they live far enough away from the ocean that they don't have an impact on ocean water quality.

Consistent with the above, nearly half of those surveyed confided that they are either not at all informed about the causes of stormwater pollution in their area, or only slightly informed.

*Are residents generally supportive of efforts to reduce stormwater pollution?*

Although the public's awareness of stormwater facts may be limited, residents nevertheless hold attitudes that are generally supportive of efforts to reduce stormwater pollution. The vast majority of residents agreed that reducing stormwater pollution is everybody's responsibility—government, businesses, and residents. Although reducing stormwater pollution was not rated as important as the other issues tested in the study, more than half (58%) of residents nevertheless rated reducing stormwater pollution as either extremely or very important.

*What actions have residents taken to reduce stormwater pollution, and are they willing to take action in the future?*

Being philosophically supportive of efforts to reduce stormwater pollution is one thing. Personally taking action to reduce stormwater pollution is quite another. Although 77% of respondents reported that they believe residents *can* take action to reduce stormwater pollution, just 36% indicated that they *did* take action in the 12 months prior to the interview specifically for the purpose of reducing stormwater pollution.

On a more positive note, however, nearly two-thirds (64%) of respondents indicated that they would be willing to take action in the upcoming 12 month period with the intent of reducing stormwater pollution. Moreover, residents were generally of the opinion that each of the 13 pollution-reducing activities tested in the study were comparatively easy to

take -- especially keeping trash and recycling bins covered to prevent litter from blowing into the street, recycling used motor oil, and using a broom to clean the driveway or sidewalk rather than spraying it with a hose.

It is worth noting, moreover, that the County appears to have a golden opportunity to reduce pollution-reducing activities through more effective promotion of the hotline. As noted above, residents report witnessing pollution-causing activities in their neighborhood on a regular basis. More than two-thirds (69%) of respondents also indicated that they would be willing to contact an anonymous hotline in the event someone in their neighborhood was causing stormwater pollution so that the person could be notified to stop the activity. The problem? Just 17% of residents were aware that such a hotline exists prior to taking the survey.

*How penetrated are the County's public service announcements regarding stormwater?*

Although the ultimate goal of the stormwater management program's public education efforts is to persuade individuals to reduce and/or eliminate behaviors that cause stormwater pollution, there are a series of related objectives which must be met in order for this to occur. For example, regardless of how compelling the message may be, if the message does not reach the target audience then the program can not succeed in its primary goal. Thus, an instrumental objective of the program is to simply increase awareness of the stormwater management program and related issues.

To measure message penetration, the survey asked several questions related to the character the County and SLO County Partners for Water Quality have chosen to represent the campaign—Sammy the Steelhead. Sammy narrates the public service announcements and is featured prominently in the television, radio and printed materials produced by the program.

The survey results indicate that half of the residents in the County's regulated unincorporated areas recall being exposed to stormwater public service announcements produced by the County. Among all respondents, approximately 8% were able to name Sammy the Steelhead *without prompting*, and an additional 9% described Sammy as a trout or fish. An additional one-third (34%) of respondents were not able to name or describe Sammy initially, but with prompting did recall encountering a public service announcement that featured Sammy.

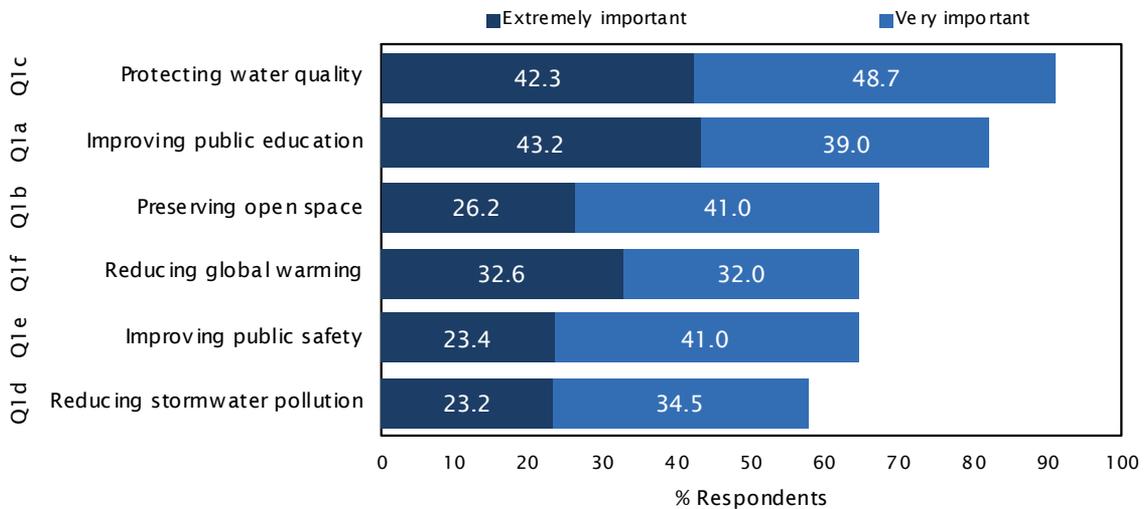
## IMPORTANCE OF ISSUES

The first substantive question of the survey presented respondents with several issues facing residents in the County and asked them to rate the importance of each issue. Because the same response scale was used for each issue, the results provide an insight into how important each issue is on a scale of importance *as well as* how each issue ranks in importance relative to the other issues tested. To avoid a systematic position bias, the order in which the issues were read to respondents was randomized for each respondent.

Figure 2 presents each issue tested, as well as the importance assigned to each issue by survey participants, in rank order of importance.<sup>3</sup> Overall, protecting water quality received the highest percentage of respondents indicating that the issue was either extremely or very important (91%), followed by improving public education (82%), preserving open space (67%), reducing global warming (65%), and improving public safety (64%). Given the purpose of this study, it is instructive to note that many residents appear not to connect the issue of protecting water quality in general—which was rated as the most important issue tested—with the more specific topic of reducing stormwater pollution (58%).

**Question 1** *For each of the following issues, please tell me how important you feel the issue is to you, using a scale of extremely important, very important, somewhat important or not at all important.*

**FIGURE 2 IMPORTANCE OF ISSUES**



3. Issues were ranked based on the percentage of respondents who indicated that the issue was either *extremely important* or *very important*.

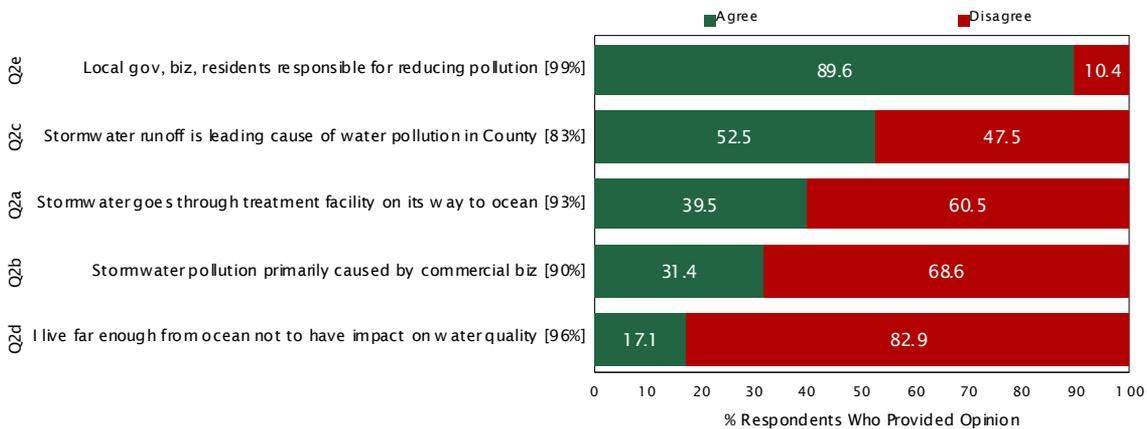
# KNOWLEDGE & AWARENESS OF STORMWATER POLLUTION

The most basic challenge for any public education effort is to raise public awareness and knowledge of an issue. Put simply, residents won't take the desired actions to help solve a problem if they are not first aware that the problem exists and/or if they are not properly informed about the nature of the problem. To this end, the survey asked a series of questions designed to measure the public's knowledge of stormwater issues, how informed they *feel* about the topic, and their understanding of the actions that residents can take to reduce stormwater pollution.

**KNOWLEDGE** The first question in this series presented respondents with the five statements shown in truncated form on the left of Figure 3 and simply asked the respondent to indicate whether they agreed or disagreed with each statement. Overall, nearly all respondents (90%) were in agreement that local governments, businesses and residents are *all* responsible for reducing stormwater pollution. When it comes to the specific causes and effects of stormwater pollution, however, a substantial percentage of residents do not have their facts straight. Just half (53%) of residents correctly identified stormwater runoff as a leading cause of water pollution in San Luis Obispo County. A surprisingly large percentage believe incorrectly that water that flows through street gutters and storm drains goes through a treatment facility before being released into the ocean (40%), and nearly one-third (31%) of residents mistakenly believe that stormwater pollution is primarily caused by commercial businesses. Approximately 17% of residents within regulated areas were also of the opinion that they live far enough away from the ocean that they don't have an impact on ocean water quality.

**Question 2** *Next, I'm going to read a series of statements. For each I read, I'd like you to tell me whether you agree or disagree with the statement.*

**FIGURE 3 AGREEMENT WITH STORMWATER POLLUTION STATEMENTS**



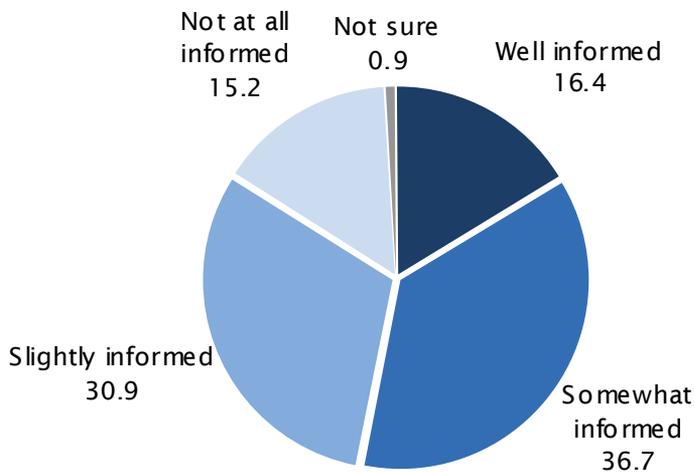
**HOW INFORMED DO YOU FEEL?** Respondents were next asked to describe how informed they feel about the causes of stormwater pollution in their area. Consistent with the patterns of objective knowledge found in Figure 3 above, residents were decidedly mixed in how informed they felt on the topic of stormwater pollution (see Figure 4). Approximately 16% felt they were well-informed, 37% somewhat informed, and 31% indicated that they were slightly

informed about stormwater pollution. An additional 15% indicated that they were not at all informed about the causes of stormwater pollution, whereas 1% were unsure.

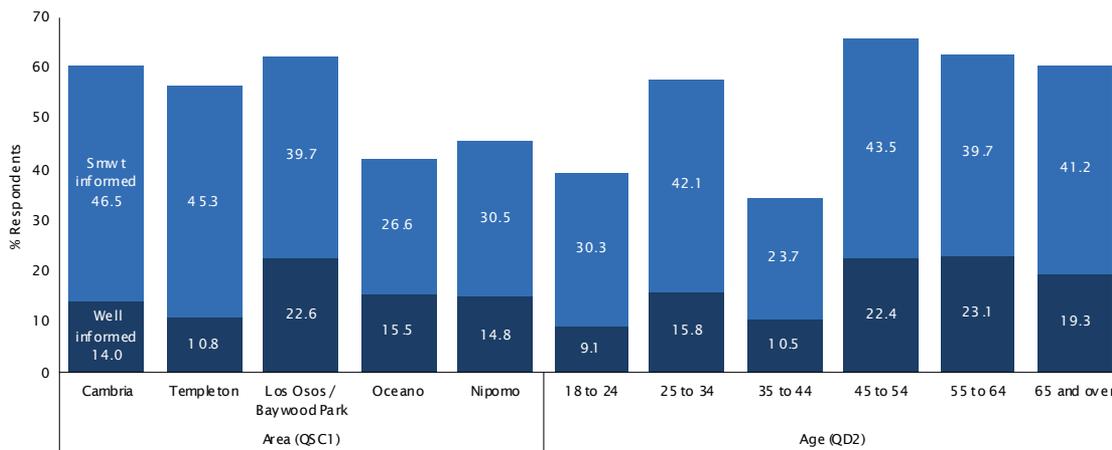
As one might expect, how informed respondents felt about the causes of stormwater pollution varied substantially by certain household and demographic traits. When compared to their respective counterparts, those who lived in Los Osos/Baywood Park, residents between the ages of 45 and 54, those with a four-year college degree, caucasians, and males were the most likely to describe themselves as being at least somewhat informed about the causes of stormwater pollution (see Figures 5 & 6).

**Question 3** Overall, how informed do you feel about the causes of stormwater pollution in your area? Would you say you feel well informed, somewhat informed, slightly informed, or not at all informed?

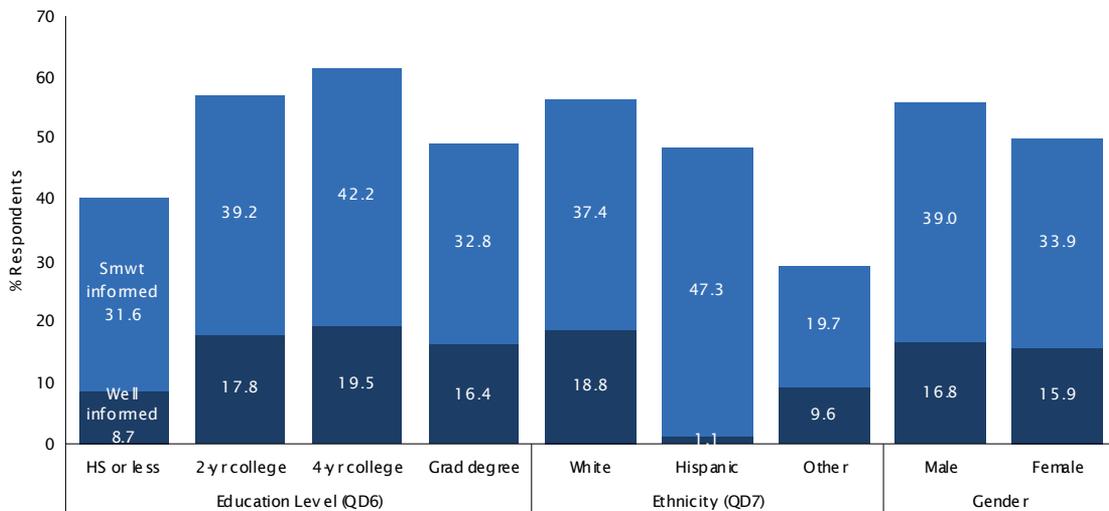
**FIGURE 4 HOW INFORMED ABOUT STORMWATER POLLUTION**



**FIGURE 5 HOW INFORMED ABOUT STORMWATER POLLUTION BY AREA & AGE**



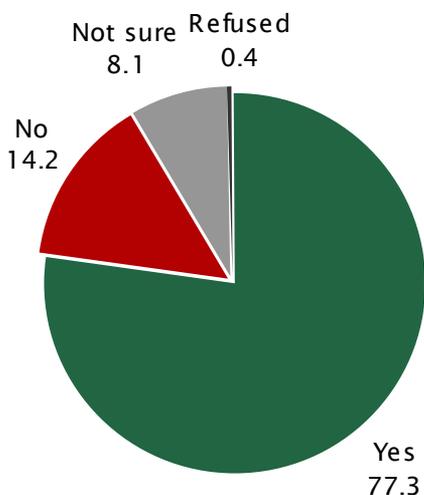
**FIGURE 6 HOW INFORMED ABOUT STORMWATER POLLUTION BY EDUCATION LEVEL, ETHNICITY & GENDER**



**CAN RESIDENTS MAKE A DIFFERENCE?** The survey next turned to gauging residents' opinions about the role that the public can play in reducing stormwater pollution. The first question in this series was designed to gauge residents' sense of efficacy in solving the stormwater pollution problem. In other words, do residents think there are actions that the public can take in their area to reduce stormwater pollution? As shown in Figure 7, more than three-quarters (77%) of respondents agreed that residents can take actions that will reduce stormwater pollution, whereas 14% felt that residents could not impact stormwater pollution and 8% were unsure.

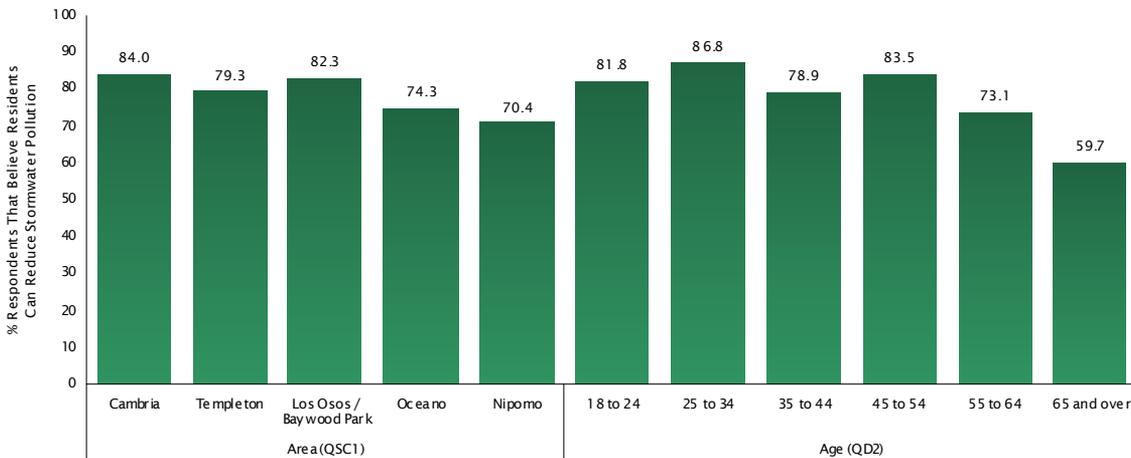
**Question 4** *Do you think there are actions that residents in your area can take to reduce stormwater pollution?*

**FIGURE 7 FEEL RESIDENTS CAN TAKE ACTIONS TO REDUCE STORMWATER POLLUTION**

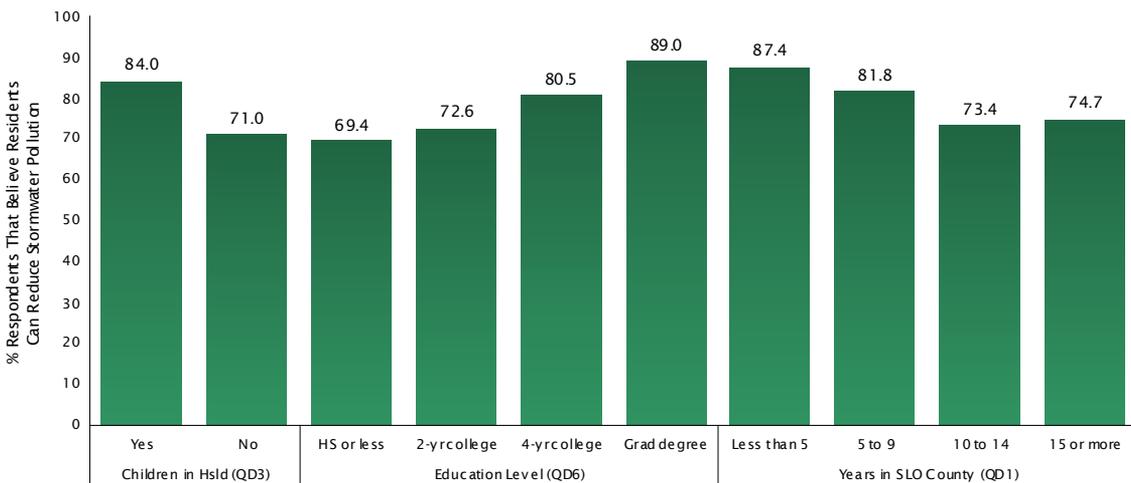


When compared to their respective counterparts, residents of Cambria, those between the ages of 25 and 34, those who reside with children, residents with graduate degrees, and new residents (less than five years) were the most likely to believe that residents can take actions to effectively reduce stormwater pollution (see Figures 8 & 9).

**FIGURE 8 FEEL RESIDENTS CAN TAKE ACTIONS TO REDUCE STORMWATER POLLUTION BY AREA & AGE**



**FIGURE 9 FEEL RESIDENTS CAN TAKE ACTIONS TO REDUCE STORMWATER POLLUTION BY CHILDREN IN HSLD, EDUCATION LEVEL & YEARS IN SLO COUNTY**



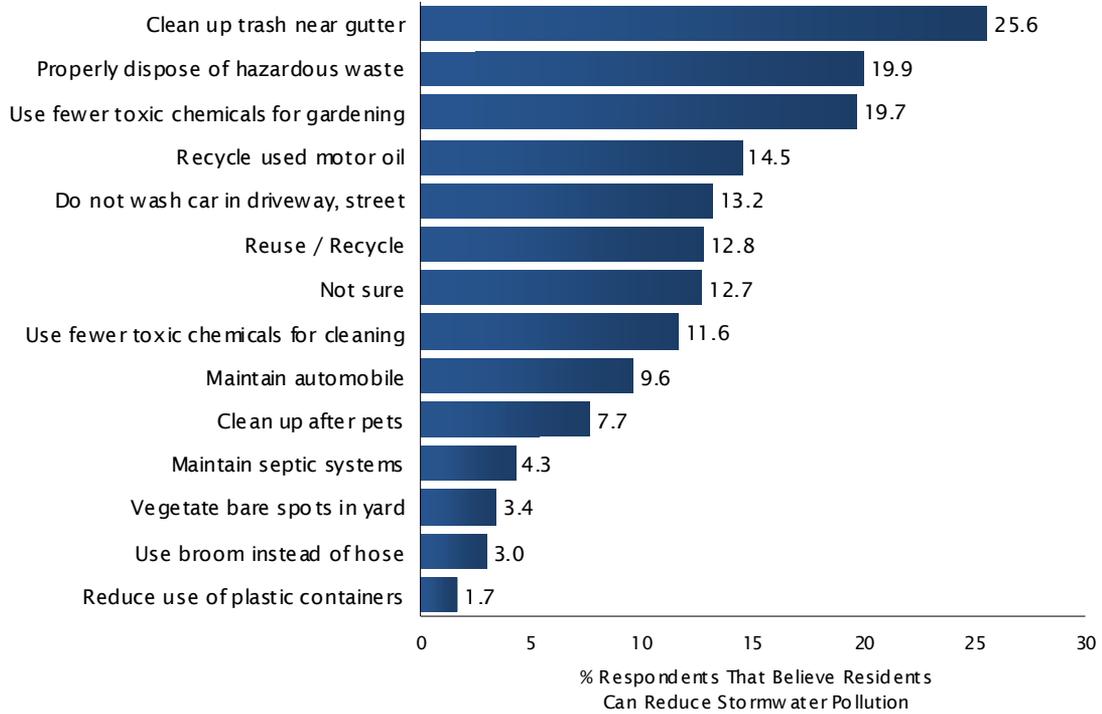
**WHAT ACTIONS CAN RESIDENTS TAKE?** For those residents who felt that the public *can* take actions to effectively reduce local levels of stormwater pollution, the survey next inquired as to the types of actions that they can take. Question 5 was asked in an open-ended manner, which allowed respondents to mention any actions that came to mind without being prompted by—or restricted to—a particular list of options. For this reason, the question is a good measure of resident *awareness* of the various actions that they can take to reduce stormwater pollution. Because there are multiple actions that a resident can take, multiple responses were allowed for this question. The percentages in Figure 10 on the next page correspond to the percentage of those respondents who were administered the question that mentioned a particular action.

The most commonly mentioned action was cleaning up trash near gutters (26%), followed by properly disposing of hazardous waste (20%), and using fewer toxic chemicals for gardening

(20%). Other actions that were mentioned by at least 10% of respondents who received Question 5 included recycling used motor oil (15%), not washing a car in the driveway or in the street (13%), reusing/recycling (13%), and using fewer toxic chemicals for household cleaning (12%).

**Question 5** *What actions can they take to reduce stormwater pollution?*

**FIGURE 10 WAYS TO REDUCE STORMWATER POLLUTION**



## REDUCING STORMWATER POLLUTION: PERSONAL BEHAVIOR

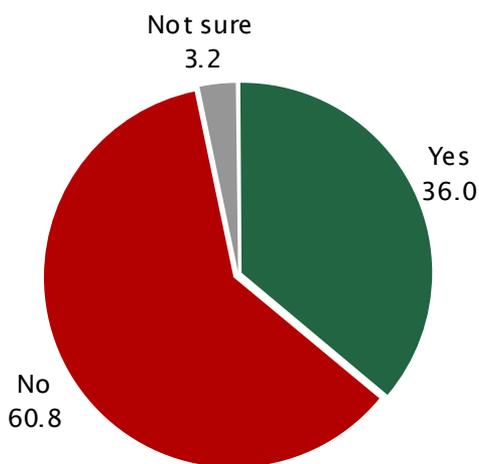
The prior two sections of the survey focused on respondents' awareness of the stormwater pollution problem in their area, as well as their knowledge of the types of actions that can be taken to reduce stormwater pollution. At this point, the survey shifted from measuring awareness and attitudes about stormwater pollution to measuring past and anticipated behavior. Specifically, what actions have respondents taken to reduce stormwater pollution, what actions would they be likely to take in the future, and how difficult would it be for them to take a variety of specific actions?

Past research has shown that measuring behavior is a difficult task — especially when respondents understand that certain behaviors are *socially desirable*, whereas others are not. In this case, the concern was that some respondents would indicate that they have and/or are willing to take actions to reduce stormwater pollution because they know “they should”, when in fact they did not take the action and/or are unwilling to do so in the future. In an effort to avoid this potential source of measurement error, respondents were first instructed that we recognize that people have very demanding schedules and lifestyles, and that making changes to reduce stormwater pollution can be difficult for many people, and impossible for others. Having thus made it acceptable for a respondent to indicate that they have not taken action, participants were then asked to provide their honest opinions.

**PAST BEHAVIOR** The first question in this series asked respondents whether, in the past 12 months, they have taken any actions *specifically* for the purpose of reducing stormwater pollution. As shown in Figure 11, 36% of adult residents indicated that they had taken at least one action during this period with the intent of reducing stormwater pollution, whereas 61% indicated that they had not taken such action and 3% were unsure.

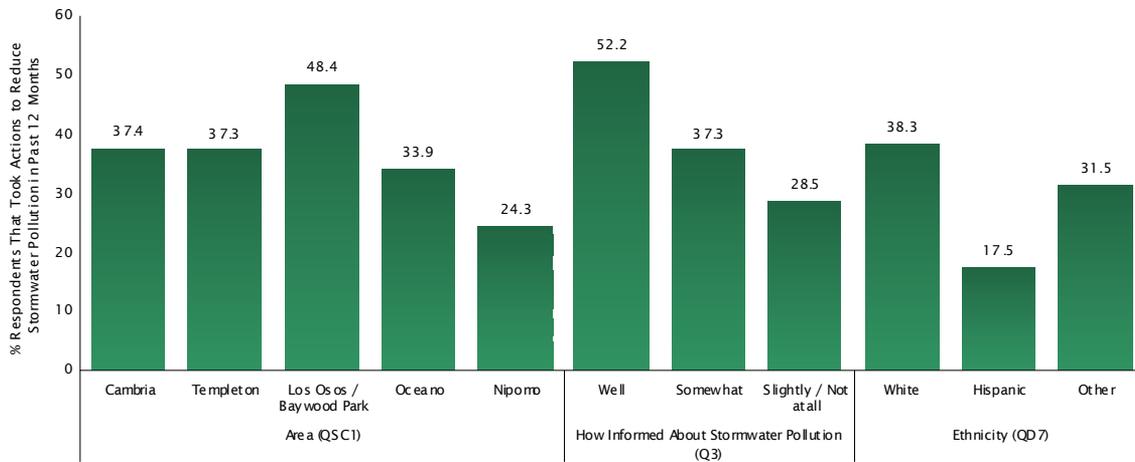
**Question 6** *In the past 12 months, have you taken any actions specifically for the purpose of reducing stormwater pollution?*

FIGURE 11 TAKEN ACTIONS TO REDUCE STORMWATER POLLUTION IN PAST 12 MONTHS

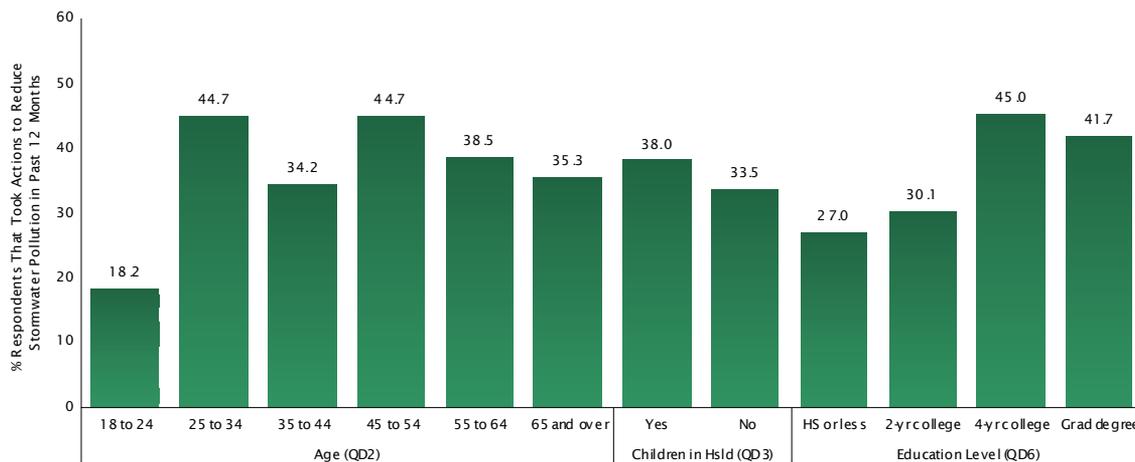


Overall, respondents who reported that they had taken actions for the purpose of reducing stormwater pollution were most frequently found among Los Osos/Baywood Park residents, those who feel well-informed about the causes of stormwater pollution, caucasians, those between the ages of 25 and 34 or 45 and 54, individuals who reside with children, and those with four-year college degrees (see Figures 12 & 13).

**FIGURE 12 TAKEN ACTIONS TO REDUCE STORMWATER POLLUTION IN PAST 12 MONTHS BY AREA, HOW INFORMED ABOUT STORMWATER POLLUTION & ETHNICITY**



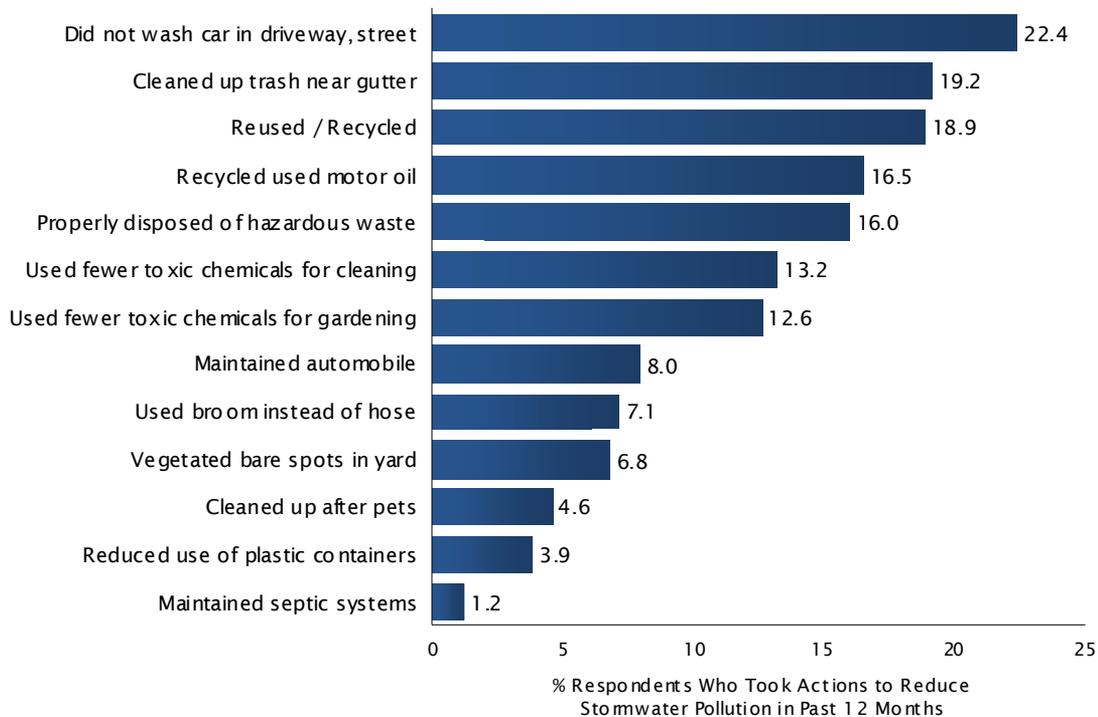
**FIGURE 13 TAKEN ACTIONS TO REDUCE STORMWATER POLLUTION IN PAST 12 MONTHS BY AGE, CHILDREN IN HSLD & EDUCATION LEVEL**



When asked in an open-ended manner to describe the actions that they took to reduce stormwater pollution during the past 12 months, 22% reported they avoided washing a car in their driveway or on the street, 19% cleaned-up trash near the gutter, 19% indicated that they reused/recycled products, and 17% recycled their used motor oil (see Figure 14 on the next page). Other actions reported by at least 10% of respondents who received Question 7 included properly disposing of hazardous waste (16%), and using fewer toxic chemicals for household cleaning (13%) and gardening (13%).

**Question 7** *What actions did you take to reduce stormwater pollution?*

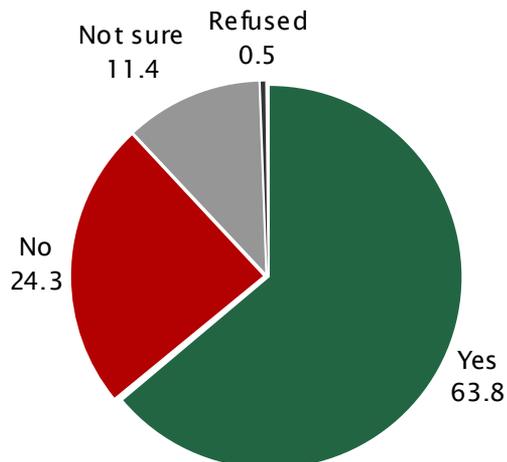
**FIGURE 14 ACTIONS TAKEN TO REDUCE STORMWATER POLLUTION IN PAST 12 MONTHS**



**FUTURE ACTIONS** The survey next turned to future actions—that is, whether respondents were willing to take actions in the future to reduce stormwater pollution, and which actions they were most likely to engage in, all other things being equal. Overall, nearly two-thirds (64%) of respondents indicated that they were willing to take actions to reduce stormwater pollution in the upcoming 12 months, whereas 24% were unwilling and 11% were unsure (Figure 15).

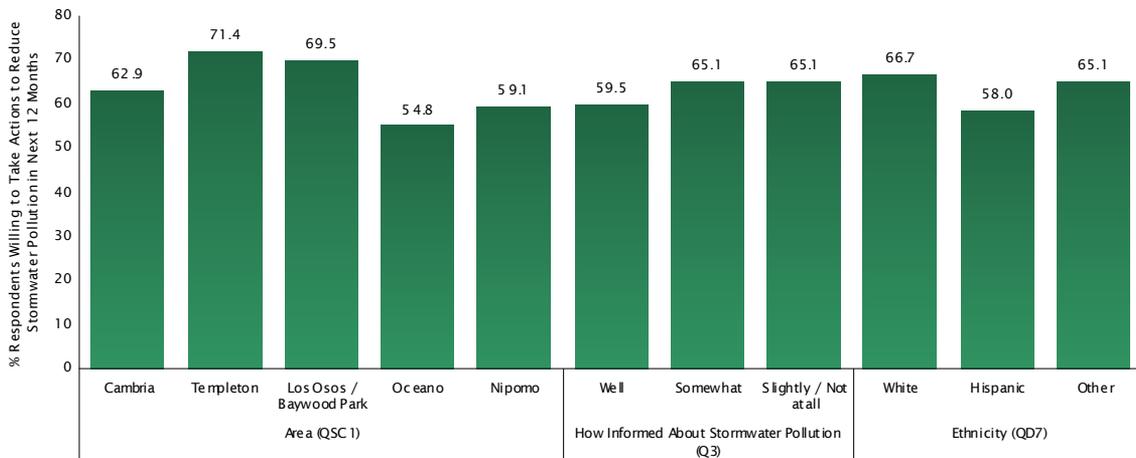
**Question 8** *Looking forward to the next 12 months, are there any actions that you are willing to take to reduce stormwater pollution?*

**FIGURE 15 WILLING TO TAKE ACTIONS TO REDUCE STORMWATER POLLUTION IN NEXT 12 MONTHS**

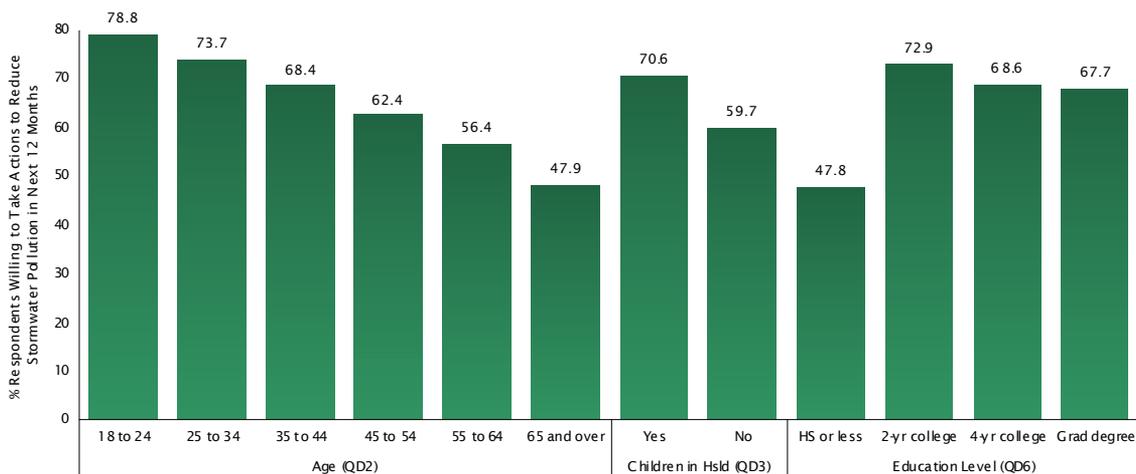


Willingness to take action in the interest of reducing stormwater pollution was not evenly distributed across residents. In general, a willingness to take action declined with age and was highest among residents of Templeton, those who felt less than well-informed about the causes of stormwater pollution at the outset of the interview, caucasians, those who reside with children, and residents who have at least some college education (see Figures 16 & 17).

**FIGURE 16 WILLING TO TAKE ACTIONS TO REDUCE STORMWATER POLLUTION IN NEXT 12 MONTHS BY AREA, HOW INFORMED ABOUT STORMWATER POLLUTION & ETHNICITY**



**FIGURE 17 WILLING TO TAKE ACTIONS TO REDUCE STORMWATER POLLUTION IN NEXT 12 MONTHS BY AGE, CHILDREN IN HSLD & EDUCATION LEVEL**



**PERCEIVED DIFFICULTY OF ACTIONS** The ultimate goal of San Luis Obispo County’s stormwater prevention program is to elicit positive behavior change on the part of residents that will reduce stormwater pollution. Toward this end, it makes sense for the program to focus on behavior changes that are comparatively easy to make—all other things being equal—rather than on changes which residents have difficulty making even if they are predisposed to take positive action.

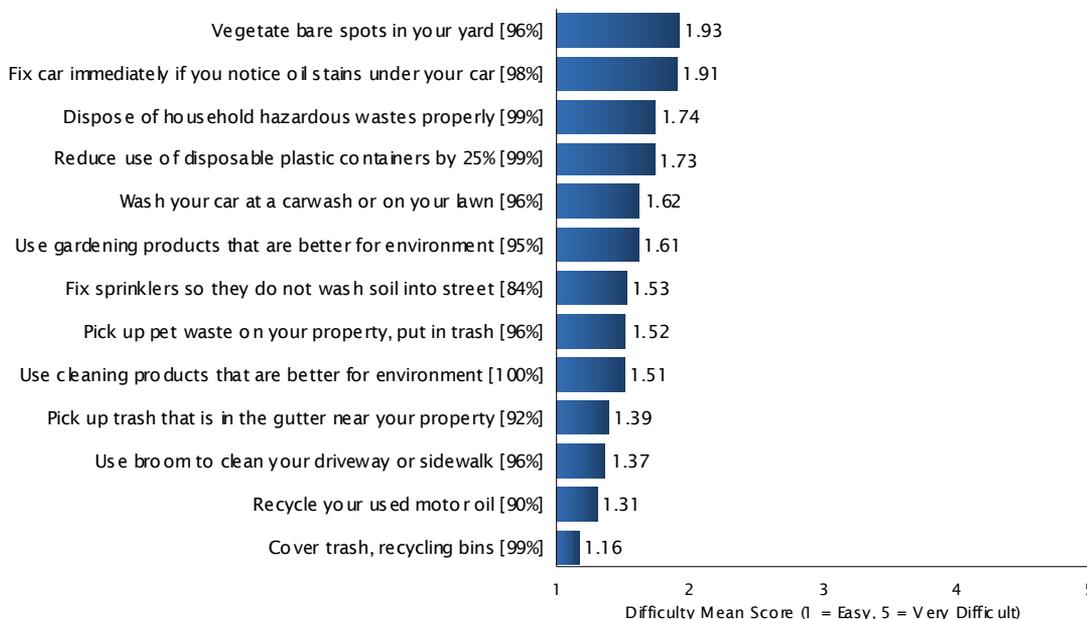
So what actions do residents who are willing to take action think are comparatively easy to take? After prefacing this question with the respondent by noting that some actions are easier for people to take than others, respondents were asked to indicate how difficult it would be for them to take each of the actions shown in Figure 18 using the scale shown at the bottom of the figure. If a respondent felt that an action did not apply to them, they were asked to indicate so.<sup>4</sup> The

mean scores shown in the figure represent the average responses among all participants who received the question and for which the action applied.<sup>5</sup>

Overall, keeping trash and recycling bins covered to prevent litter from blowing into the street (1.16), recycling used motor oil (1.31), and using a broom to clean the driveway or sidewalk rather than spraying it with a hose were perceived as the *least* difficult actions to take in the interest of reducing stormwater pollution. At the other end of the spectrum, vegetating bare spots in the yard so that soil does not wash away (1.93), fixing one’s car immediately if it leaves oil stains on the driveway (1.91), and disposing of household hazardous wastes by taking them to a recycling center (1.74) were—relatively speaking—perceived to be the most difficult actions to take. Nevertheless, *all* of the actions tested in Question 9 were viewed as reasonably easy actions to take in the interest of reducing stormwater pollution by those who were inclined to take action.

**Question 9** *Some actions are easier for people to take than others. As I read each of the following actions, please indicate how difficult it would be for you to take this action using a scale from one to five. A one means that it would be easy for you to take the action, whereas a five means it would be very difficult for you to take the action. You can use any number between one and five. If the action doesn't apply to you for some reason, just say so.*

**FIGURE 18 DIFFICULTY OF PERFORMING ACTIONS TO REDUCE STORMWATER POLLUTION**



4. For example, a person who does not have a yard with sprinklers would not be able to fix the sprinklers so they do not wash soil into the street—so they could answer that this action does not apply to them.
5. The percentage of respondents who received the question and indicated that the action applied to them is shown to the left of each action.

## POLLUTION-CAUSING ACTIVITIES

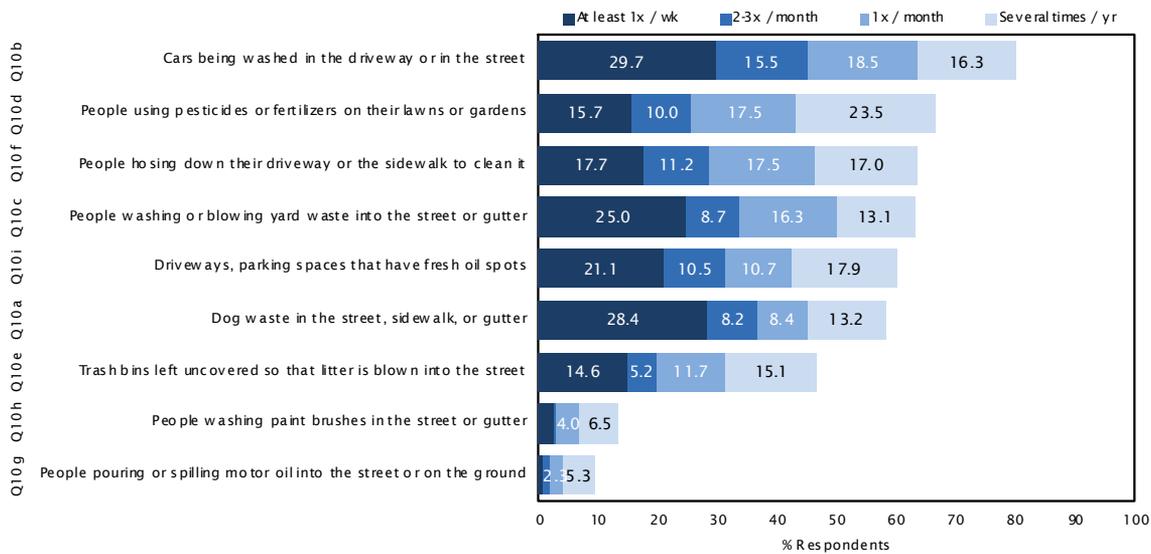
Having measured awareness and knowledge regarding stormwater pollution, as well as the actions respondents are willing to take in the interest of reducing stormwater pollution, the survey next sought to profile the prevalence of pollution-causing activities at the neighborhood level and respondents' willingness to report such activities.

**POLLUTION-CAUSING ACTIVITIES IN NEIGHBORHOOD** The first question in this series listed the activities shown to the left of Figure 19 and simply asked respondents how often they see this activity in their neighborhood—at least once per week, two to three times per month, once per month, several times per year, or never? The activities are sorted from high to low in Figure 19 based on the percentage of respondents who reported that the activity occurs at least several times per year in their neighborhood.

Figure 19 demonstrates that stormwater pollution-causing activities occur on a regular basis in many neighborhoods. Nearly one-third of respondents reported that they witness cars being washed in driveways and on the street (30%) and dog waste being left in the street, on the sidewalk, or in the gutter (28%) at least once per week. People washing or blowing yard waste into the street or gutter (25%) and driveways with fresh oil spots (21%) are also weekly occurrences in many neighborhoods. Just two activities stood out as being very *uncommon*: people pouring or spilling motor oil into the street or on the ground (2% weekly) and washing paint brushes in the street or gutter (1% weekly).

**Question 10** *How often do you see the following in your neighborhood: \_\_\_\_\_? At least once per week, two to three times per month, once per month, several times per year, or never?*

**FIGURE 19 FREQUENCY OF ENCOUNTERING STORMWATER POLLUTION-CAUSING ACTIVITIES**



For the interested reader, Table 1 displays how the perceived frequency of each pollution-causing activity varied by the five defined sub-areas of the study. The percentages in the table indicate the percentage of respondents who reported witnessing the activity in their neighborhood more often than once per month.

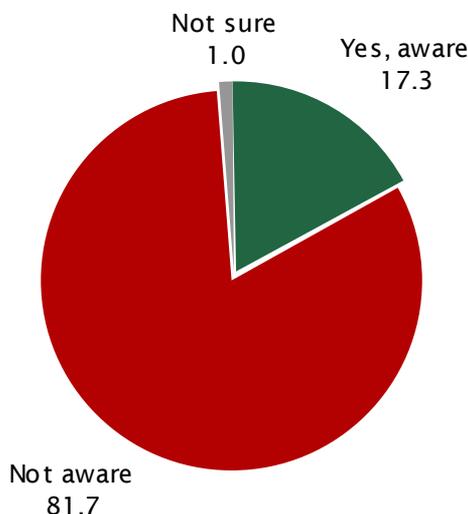
**TABLE 1 FREQUENCY OF ENCOUNTERING STORMWATER POLLUTION-CAUSING ACTIVITIES BY AREA (SHOWING % MORE THAN ONCE PER MONTH)**

	Area (QSC1)				
	Cambria	Templeton	Los Osos / Baywood Park	Oceano	Nipomo
Cars being washed in the driveway or in the street	33.4	33.1	46.7	53.3	48.0
Dog waste in the street, sidewalk, or gutter	50.8	25.4	44.9	30.1	28.5
People washing or blowing yard waste into the street or gutter	32.8	26.7	30.5	28.1	40.8
Driveways, parking spaces that have fresh oil spots	19.8	25.2	36.1	23.2	33.7
People hosing down their driveway or the sidewalk to clean it	15.3	30.5	26.0	26.1	35.0
People using pesticides or fertilizers on their lawns or gardens	22.7	24.3	25.7	10.2	30.1
Trash bins left uncovered so that litter is blown into the street	11.6	21.1	20.8	24.1	18.4
People washing paint brushes in the street or gutter	4.6	2.3	4.1	0.0	2.9
People pouring or spilling motor oil into the street or on the ground	0.0	1.0	3.6	2.1	1.2

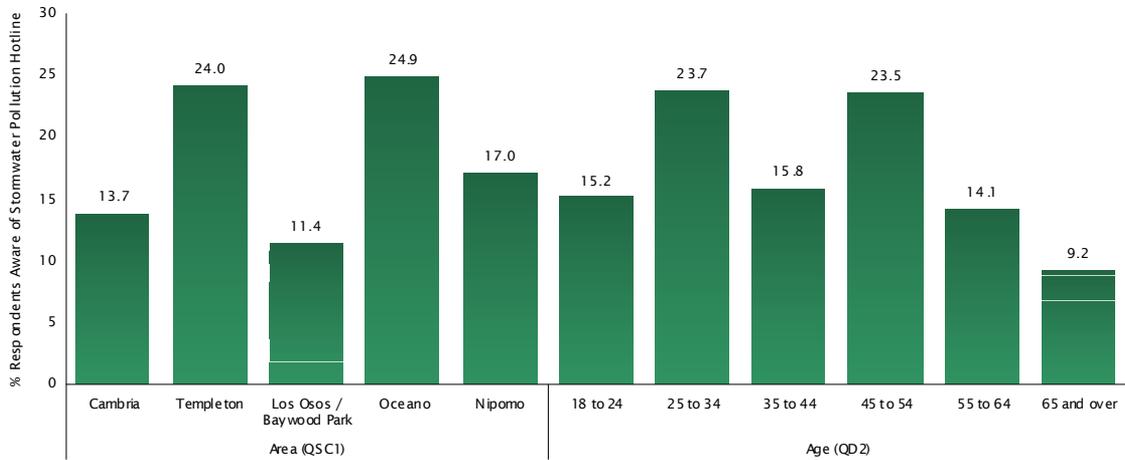
**STORMWATER HOTLINE** All respondents were next asked whether—prior to taking the survey—they were aware that there is a hotline residents can call to report activities that are causing stormwater pollution. Figure 20 shows that few residents are aware of this fact, with just 17% indicating that they were aware of the hotline prior to the interview. Awareness of the hotline varied by area and age—being highest in Templeton, Oceano, and among residents between the ages of 25 and 34 or 45 and 54 (see Figure 21 on the next page).

**Question 11** *Prior to taking this survey, were you aware that there was a local hotline you could call to report activities that are causing stormwater pollution?*

**FIGURE 20 AWARENESS OF STORMWATER POLLUTION REPORTING HOTLINE**



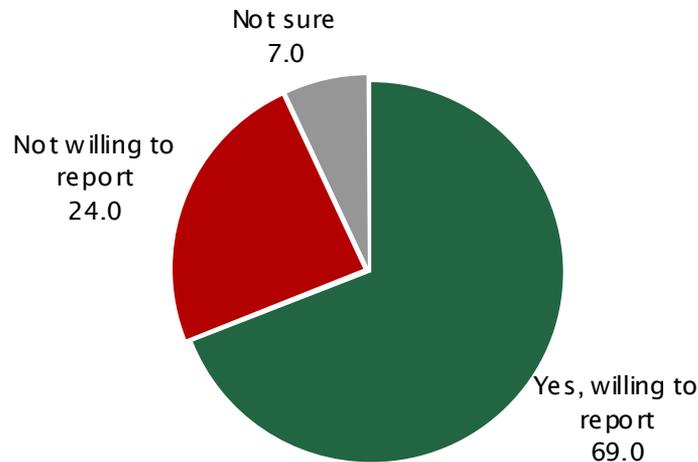
**FIGURE 21 AWARENESS OF STORMWATER POLLUTION REPORTING HOTLINE BY AREA & AGE**



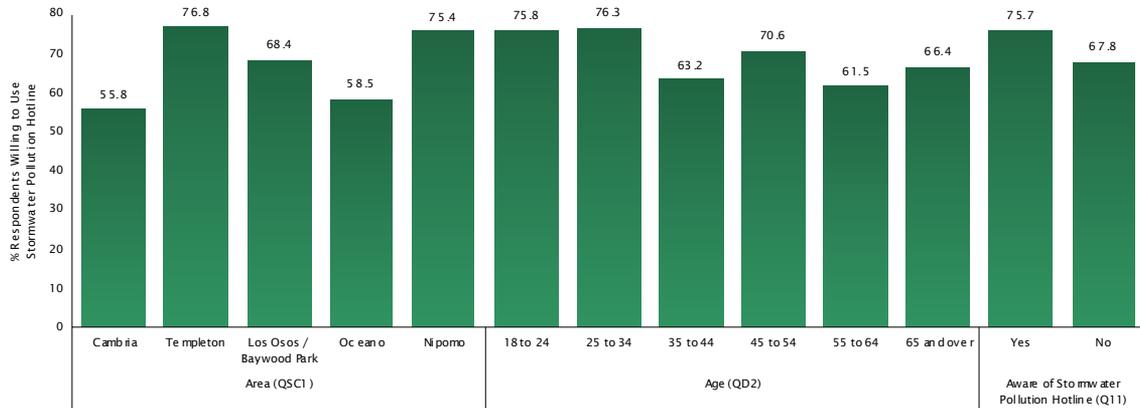
Although awareness of the hotline was low among respondents, a willingness to *use* the hotline was widespread. Over two-thirds (69%) of respondents offered that they would be willing to dial an anonymous hotline in the event someone in their neighborhood was causing stormwater pollution so that the person could be notified to stop the activity (Figure 22). When compared to their respective counterparts, residents of Templeton, those under the age of 35, and those who were aware of the hotline prior to taking the interview were the most likely to state that they would be willing to use the hotline under these circumstances (see Figure 23).

**Question 12** *If someone in your neighborhood was causing stormwater pollution, would you be willing to dial an anonymous hotline so that the person could be notified to stop the activity?*

**FIGURE 22 WILLINGNESS TO REPORT STORMWATER POLLUTION-CAUSING BEHAVIOR**



**FIGURE 23 WILLINGNESS TO REPORT STORMWATER POLLUTION-CAUSING BEHAVIOR BY AREA, AGE & AWARE OF STORMWATER POLLUTION HOTLINE**



## MEDIA & MESSAGE EXPOSURE

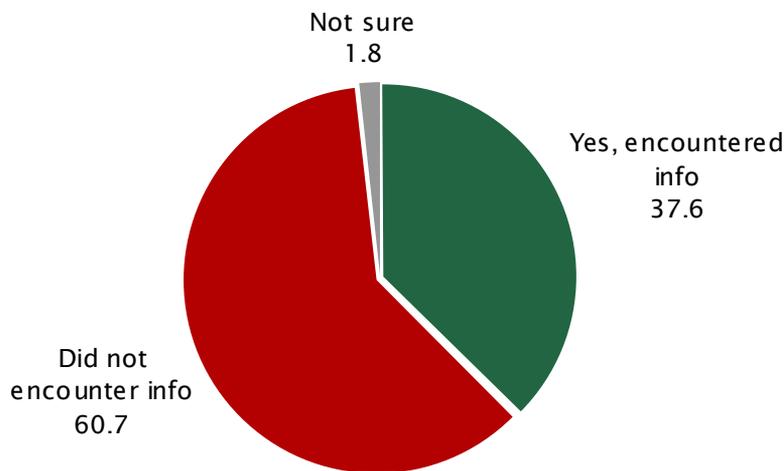
Although the ultimate goal of the stormwater management program's public education efforts is to persuade individuals to reduce and/or eliminate behaviors that cause stormwater pollution, there are a series of related objectives which must be met in order for this to occur. For example, regardless of how compelling the message may be, if the message does not reach the target audience then the program can not succeed in its primary goal. Thus, an instrumental objective of the program is to simply increase awareness of the stormwater management program and related issues.

**RECALL EXPOSURE TO SPARE THE AIR MESSAGING** Accordingly, a series of questions was asked of respondents about their recall of stormwater messaging. The first of these questions asked respondents if during the past three months they recalled hearing, reading or seeing any news stories or public service announcements about stormwater pollution and ways that residents can prevent it.

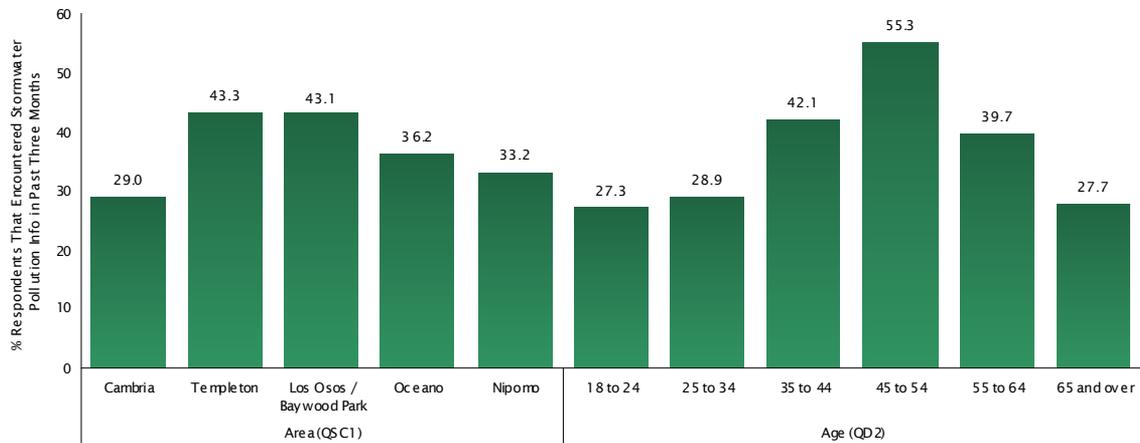
Figure 24 shows the just over one-third (38%) of respondents recalled being exposed to news stories and/or public service announcements related to stormwater pollution in the three months prior to the interview. Recalled exposure was highest among residents of Templeton and Los Osos/Baywood Park, those between the ages of 45 and 54, those who reside with children, home owners, hispanics, and males (see Figures 25 & 26 on the next page).

**Question 13** *Let's change gears a bit. In the past three months, have you heard, read, or seen any new stories or public service announcements about stormwater pollution and ways that residents can prevent it?*

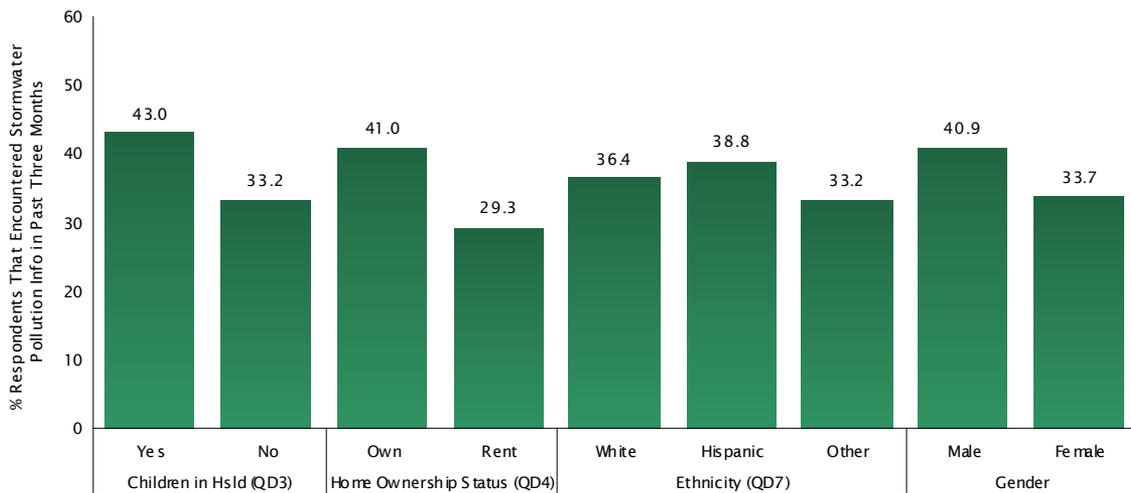
**FIGURE 24 ENCOUNTED STORMWATER POLLUTION INFO IN PAST THREE MONTHS**



**FIGURE 25 ENCOUNTERED STORMWATER POLLUTION INFO IN PAST THREE MONTHS BY AREA & AGE**



**FIGURE 26 ENCOUNTERED STORMWATER POLLUTION INFO IN PAST THREE MONTHS BY CHILDREN IN HSLD, HOME OWNERSHIP STATUS, ETHNICITY & GENDER**

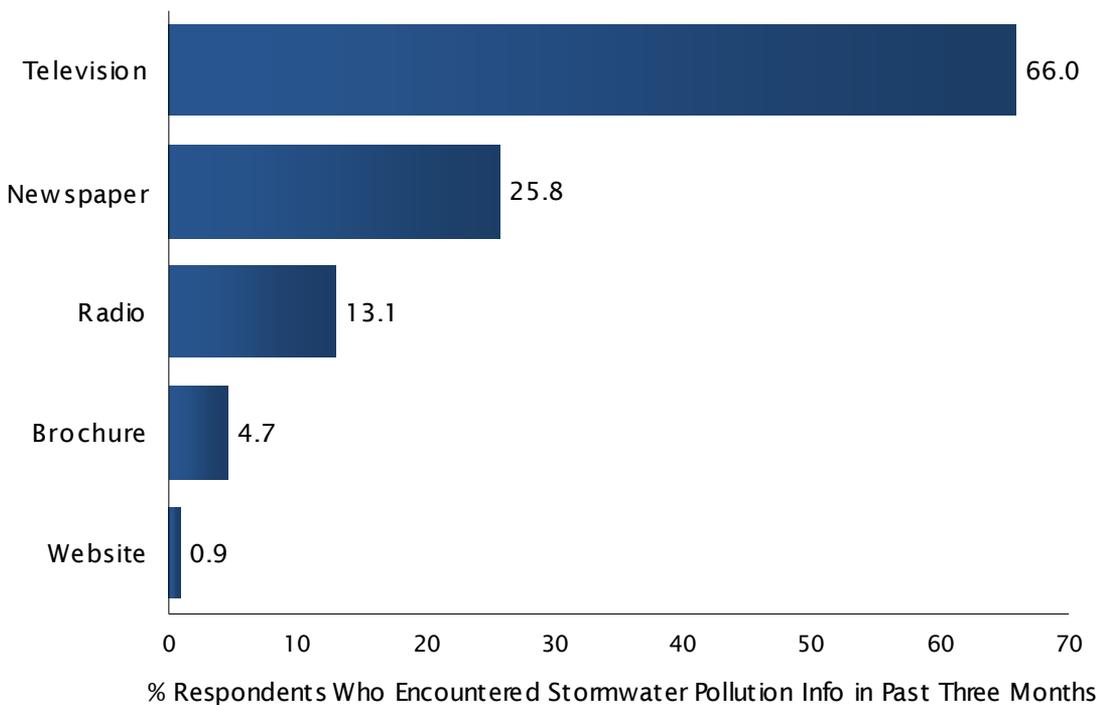


**INFORMATION SOURCE** Those who indicated that they recalled hearing, reading, or seeing stormwater messages during the prior three months were next asked where they obtained the information. Question 14 was asked in an open-ended manner without prompting for specific sources, and multiple responses to the question were allowed and recorded.

By far the most common source for stormwater-related messages was television—being mentioned by two-thirds (66%) of respondents who recalled encountering a public service announcement or news story. Approximately one-quarter (26%) mentioned that they encountered the information in a newspaper, whereas 13% recalled hearing a radio spot related to stormwater pollution. No other individual sources were mentioned by at least 5% of respondents (see Figure 27).

**Question 14** *Where did you see or hear the public service announcement?*

**FIGURE 27** STORMWATER POLLUTION INFO SOURCE



**SAMMY THE STEELHEAD** The final three substantive questions in the survey sought to measure unaided and aided recall of the character that the County and SLO County Partners for Water Quality have chosen to represent the campaign—Sammy the Steelhead. Sammy narrates the public service announcements and is featured prominently in the television, radio and printed materials produced by the program.

Respondents who recalled being exposed to stormwater public service announcements were asked whether the announcement had a character or mascot in it and—if yes—if they could name or describe the character. Respondents who could not name or describe Sammy, as well as respondents who did not recall encountering public service announcements related to stormwater pollution in the prior three month period, were also asked whether they recalled encountering a public service announcement in which a fish called Sammy the Steelhead talked about ways to prevent stormwater pollution. The answers to all three questions are combined in Figure 28 on the next page.

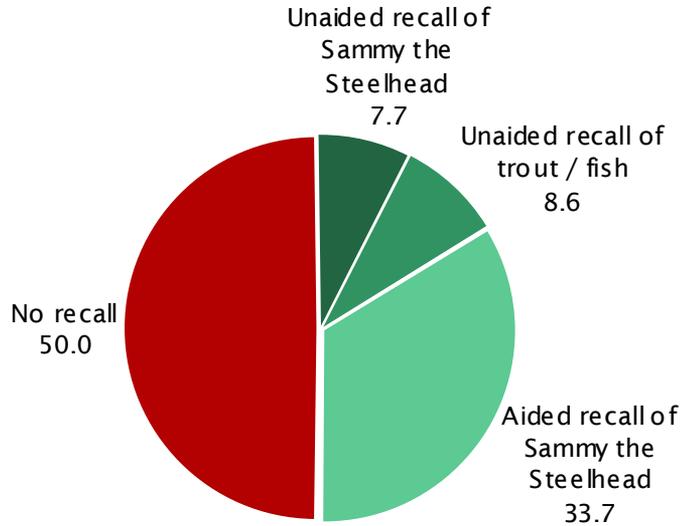
Among all respondents, approximately 8% were able to name Sammy the Steelhead without prompting, and an additional 9% described Sammy as a trout or fish. An additional one-third (34%) of respondents were not able to name or describe Sammy initially, but with prompting did recall encountering a public service announcement that featured Sammy. Half (50%) of those surveyed did not recall encountering a public service announcement featuring Sammy, even with prompting.

**Question 15** Did the public service announcement have a character or mascot in it?

**Question 16** Can you name or describe the character?

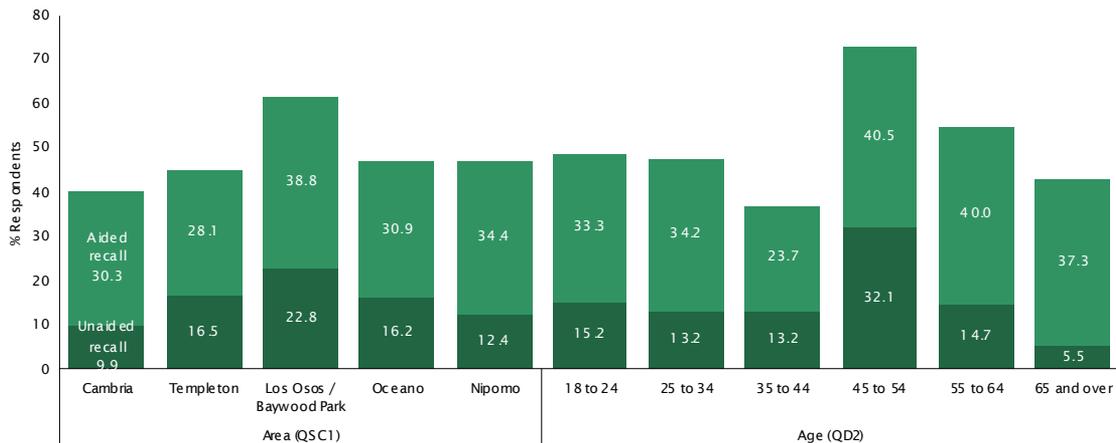
**Question 17** Prior to taking this survey, do you recall seeing or hearing a public service announcement in which a fish called "Sammy the Steelhead" talked about ways to prevent storm-water pollution?

**FIGURE 28 RECALL OF SAMMY THE STEELHEAD**

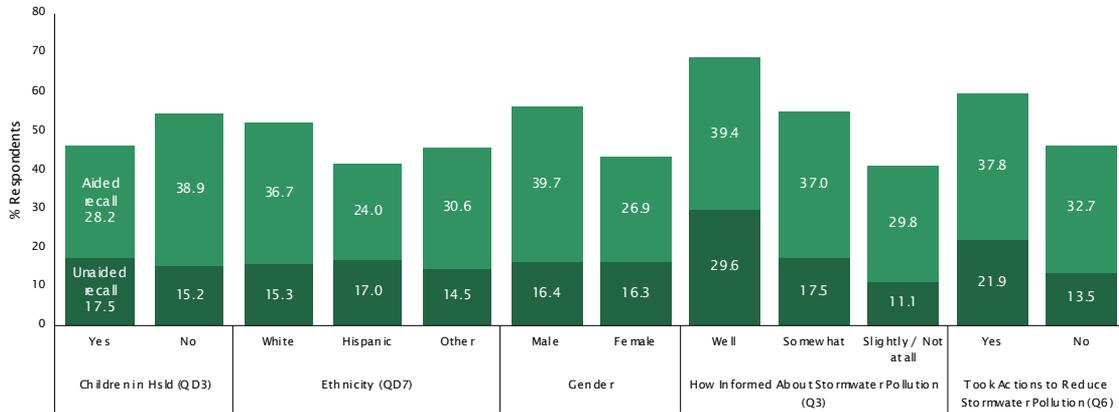


Combining both aided and unaided recall of Sammy, recall was greatest among residents of Los Osos/Baywood Park, respondents between the ages of 45 and 54, respondents who do *not* reside with children, caucasians, males, those who felt well-informed about the causes of storm-water pollution at the outset of the interview, and those who reported that they had taken action in the prior 12 months to reduce stormwater pollution (see Figures 29 & 30).

**FIGURE 29 RECALL OF SAMMY THE STEELHEAD BY AREA & AGE**



**FIGURE 30 RECALL OF SAMMY THE STEELHEAD BY CHILDREN IN HSLD, ETHNICITY, GENDER, HOW INFORMED ABOUT STORMWATER POLLUTION & TOOK ACTIONS TO REDUCE STORMWATER POLLUTION**





## BACKGROUND & DEMOGRAPHICS

**TABLE 2 DEMOGRAPHICS OF SAMPLE**

<i>Total Respondents</i>	<i>400</i>
<b>QSC1 Area</b>	
Cambria	11.1
Templeton	15.7
Los Osos / Baywood Park	28.5
Oceano	14.3
Nipomo	30.4
<b>QD1 Years in San Luis Obispo County</b>	
Less than 1	4.3
1 to 4	11.9
5 to 9	14.2
10 to 14	16.5
15 or more	51.8
Refused	1.3
<b>QD2 Age</b>	
18 to 24	17.0
25 to 34	14.3
35 to 44	19.4
45 to 54	18.3
55 to 64	10.8
65 and over	18.0
Refused	2.3
<b>QD3 Children in Hsld</b>	
Yes	45.7
No	51.3
Refused	3.0
<b>QD4 Home Ownership Status</b>	
Own	67.3
Rent	27.5
Refused	5.1
<b>QD6 Education Level</b>	
HS or less	23.6
2-yr college	28.9
4-yr college	26.2
Grad degree	17.0
Refused	4.3
<b>QD7 Ethnicity</b>	
White	69.2
Hispanic	13.8
Other	8.9
Refused	8.1
<b>Gender</b>	
Male	53.5
Female	46.5

Table 2 presents the key demographic and background information that was collected during the survey. Because of the probability-based sampling methodology used in this study, the results shown in the table are representative of adult residents in the regulated communities of Cambria, Templeton, Los Osos/Baywood Park, Oceano, and Nipomo. The primary motivation for collecting the background and demographic information was to provide a better insight into how the results of the substantive questions of the survey vary by demographic characteristics (see Appendix A for more details).



## M E T H O D O L O G Y

The following sections outline the methodology used in the study, as well as the motivation for using certain techniques.

**QUESTIONNAIRE DEVELOPMENT** Dr. McLarney of True North Research worked closely with the County of San Luis Obispo to develop a questionnaire that covered the topics of interest and avoided the many possible sources of systematic measurement error, including position-order effects, wording effects, response-category effects, scaling effects and priming. Several questions included multiple individual items. Because asking the items in a set order can lead to a systematic position bias in responses, the items were asked in a random order for each respondent.

**PROGRAMMING & PRE-TEST** Prior to fielding the survey, the questionnaire was CATI (Computer Assisted Telephone Interviewing) programmed to assist the live interviewers when conducting the telephone interviews. The CATI program automatically navigates the skip patterns, randomizes the appropriate question items, and alerts the interviewer to certain types of keypunching mistakes should they happen during the interview. The integrity of the questionnaire was pre-tested internally by True North and by dialing into random homes in the County prior to formally beginning the survey.

**SAMPLE** Households within San Luis Obispo County were chosen for this study using a random digit dial (RDD) sampling method. An RDD sample is drawn by first selecting all of the active phone exchanges (first three digits in a seven digit phone number) and working blocks that service the area. After estimating the number of listed households within each phone exchange that are located within the area, a sample of randomly selected phone numbers is generated with the number of phone numbers per exchange being proportional to the estimated number of households within each exchange in the area. This method ensures that both listed and unlisted households are included in the sample. It also ensures that new residents and new developments have an opportunity to participate in the study, which is not true if the sample were based on a telephone directory.

Although the RDD method is widely used for community surveys, the method also has several known limitations that must be adjusted for to ensure representative data. Research has shown, for example, that individuals with certain demographic profiles (e.g., older women) are more likely to be at home and are more likely to answer the phone even when other members of the household are available. If this tendency is not adjusted for, the RDD sampling method will produce a survey that is biased in favor of women—particularly older women. To adjust for this behavioral tendency, the survey included a screening question which initially asked to speak to the youngest male available in the home. If a male was not available, then the interviewer was instructed to speak to the youngest female currently available. This protocol was followed to the extent needed to ensure a representative sample. In addition to following this protocol, the sample demographics were monitored as the interviewing proceeded to make sure they were within certain tolerances.

Because the regulated communities within San Luis Obispo County share phone exchanges with neighboring areas outside the coverage area, respondents were initially asked the ZIP code of their residence (see Question SC1). Only those in ZIP codes 93428, 93465, 93402, 93412, 93445, 93475, and 93444 were eligible to participate in the study.

**STATISTICAL MARGIN OF ERROR** By using an RDD probability-based sample and monitoring the sample characteristics as data collection proceeded, True North ensured that the sample was representative of adult residents in San Luis Obispo County. The results of the survey can thus be used to estimate the opinions of *all* adult residents in the County. Because not all adult residents participated in the survey, however, the results have what is known as a statistical margin of error due to sampling. The margin of error refers to the difference between what was found in the survey of 400 respondents for a particular question and what would have been found if all of the estimated 42,289 adult residents<sup>6</sup> in the study area had been interviewed.

For example, in estimating the percentage of adult residents who are aware of the stormwater pollution reporting hotline (Question 11), the margin of error can be calculated if one knows the size of the population, the size of the sample, a desired confidence level, and the distribution of responses to the question. The appropriate equation for estimating the margin of error, in this case, is shown below:

$$\hat{p} \pm t \sqrt{\left(\frac{N-n}{N}\right) \frac{\hat{p}(1-\hat{p})}{n-1}}$$

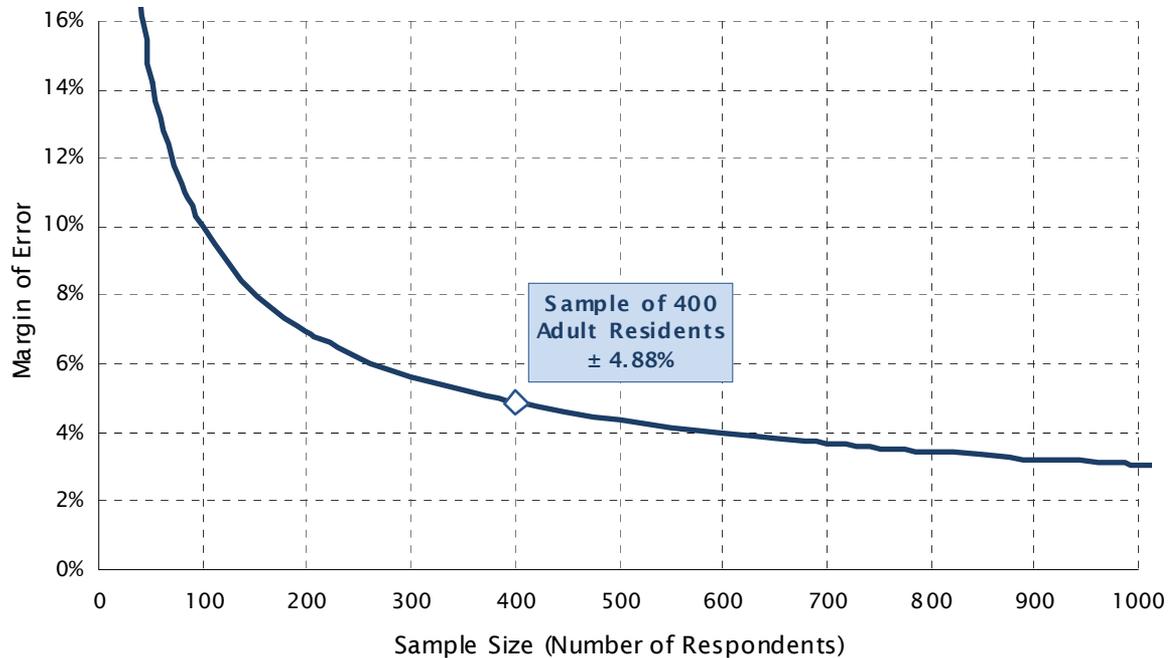
where  $\hat{p}$  is the proportion of adult residents who are aware of the hotline (0.17 for 17% in this example),  $N$  is the population size of all adult residents in the study area (42,289),  $n$  is the sample size that received the question (400), and  $t$  is the upper  $\alpha/2$  point for the t-distribution with  $n-1$  degrees of freedom (1.96 for a 95% confidence interval). Solving this equation using these values reveals a margin of error of  $\pm 3.67\%$ . This means that with 17% of adult residents indicating they were aware of the stormwater pollution reporting hotline, we can be 95% confident the actual percentage of all adult residents aware of the hotline is between 13% and 21%.

Figure 31 provides a graphic plot of the *maximum* margin of error in this study. The maximum margin of error for a dichotomous percentage result occurs when the answers are evenly split such that 50% provide one response and 50% provide the alternative response. For this survey, the maximum margin of error is  $\pm 4.88\%$ .

Within this report, figures and tables show how responses to certain questions varied by subgroups such as age, gender, and area of residence. Figure 31 is thus useful for understanding how the maximum margin of error for a percentage estimate will grow as the number of individuals asked a question (or in a particular subgroup) shrinks. Because the margin of error grows exponentially as the sample size decreases, the reader should use caution when generalizing and interpreting the results for small subgroups.

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6. Source: Derived adult population estimate for ZIP codes in study area based on 2000 Census population estimates by ZIP code and California Department of Finance projections for growth countywide since 2000.

**FIGURE 31 MAXIMUM MARGIN OF ERROR DUE TO SAMPLING**

**DATA COLLECTION** The method of data collection was telephone interviewing. Interviews were conducted during weekday evenings (5:30PM to 9PM) and on weekends (10AM to 5PM) between June 6 and June 11, 2008. It is standard practice not to call during the day on weekdays because most working adults are unavailable and thus calling during those hours would bias the sample. The interviews averaged 15 minutes in length.

**DATA PROCESSING** Data processing consisted of checking the data for errors or inconsistencies, coding and recoding responses, categorizing verbatim responses, and preparing frequency analyses and crosstabulations.

**ROUNDING** Numbers that end in 0.5 or higher are rounded up to the nearest whole number, whereas numbers that end in 0.4 or lower are rounded down to the nearest whole number. These same rounding rules are also applied, when needed, to arrive at numbers that include a decimal place in constructing figures and charts. Occasionally, these rounding rules lead to small discrepancies in the first decimal place when comparing tables and pie charts for a given question.

# QUESTIONNAIRE & TOPLINES



SLO County Stormwater Mgmt Program  
Final Toplines  
June 2008

**Section 1: Introduction to Study**

Hi, my name is \_\_\_\_\_ and I'm calling on behalf of TNR, an independent public opinion research company. We're conducting a survey about important issues in San Luis (Lew-iss) Obispo (O-biss-po) County and we would like to get your opinions.

*If needed:* This is a survey about important issues in your community. I'm NOT trying to sell anything and I won't ask for a donation.  
*If needed:* The survey should take about 10 minutes to complete.  
*If needed:* If now is not a convenient time, can you let me know a better time so I can call back?

*If the person says they are an elected official or is somehow associated with the survey, politely explain that this survey is designed to measure the opinions of those not closely associated with the survey, thank them for their time, and terminate the interview.*

**Section 2: Age & Gender Screener**

For statistical reasons, I would like to speak to the youngest adult male currently at home that is at least 18 years of age. *(if there is no male currently at home that is at least 18 years of age, then ask):* Ok, then I'd like to speak to the youngest female currently at home that is at least 18 years of age.

*(If there is no adult currently available, then ask for a callback time.)*  
**NOTE:** Adjust this screener as needed to match sample quotas on gender & age  
*If respondent asks why we want to speak to a particular demographic group, explain:* It's important that the sample of people for the survey is representative of the adult population in the County for it to be statistically reliable. At this point, we need to balance our sample by asking for people who fit a particular demographic profile.

**Section 3: ZIP Screener**

SC1	To begin, what is the ZIP code at your residence? <i>(Read zip code back to them to confirm correct)</i>			
	1	Cambria	93428	11%
	2	Templeton	93465	16%
	3	Los Osos / Baywood Park	93402, 93412	29%
	4	Oceano	93445, 93475	14%
	5	Nipomo	93444	30%
	6	Other	Terminate	0%

#### Section 4: Importance of Issues & Environmental Problems

Q1 For each of the following issues, please tell me how important you feel the issue is to you, using a scale of extremely important, very important, somewhat important or not at all important.

Here is the first issue: \_\_\_\_\_. Do you think this issue is extremely important, very important, somewhat important, or not at all important?

	<i>Randomize</i>	Extremely Important	Very Important	Somewhat Important	Not at all Important	Not sure	Refused
A	Improving public education	43%	39%	14%	3%	1%	0%
B	Preserving open space	26%	41%	24%	8%	1%	0%
C	Protecting water quality	42%	49%	8%	0%	0%	0%
D	Reducing stormwater pollution	23%	34%	32%	8%	2%	0%
E	Improving public safety	23%	41%	27%	8%	1%	0%
F	Reducing global warming	33%	32%	20%	14%	1%	0%

#### Section 5: Knowledge & Awareness of Stormwater Pollution

Q2 Next, I'm going to read a series of statements. For each I read, I'd like you to tell me whether you agree or disagree with the statement.

Here is the (first/next) one: \_\_\_\_\_. Do you agree or disagree?

	<i>Ask in Order</i>	Agree	Disagree	Not sure	Refused
A	Water that flows through street gutters and storm drains goes through a treatment facility before being released into the ocean.	37%	56%	7%	0%
B	Stormwater pollution is primarily caused by commercial businesses.	28%	62%	9%	0%
C	Stormwater runoff is a leading cause of water pollution in the County.	44%	40%	17%	0%
D	I live far enough away from the ocean that I don't have an impact on ocean water quality.	16%	80%	3%	1%
E	Local governments, businesses and residents are all responsible for reducing stormwater pollution.	89%	10%	1%	0%

Q3	Overall, how informed do you feel about the causes of stormwater pollution in your area? Would you say you feel well informed, somewhat informed, slightly informed, or not at all informed?		
	1	Well informed	16%
	2	Somewhat informed	37%
	3	Slightly informed	31%
	4	Not at all informed	15%
	98	Not sure	1%
	99	Refused	0%
Q4	Do you think there are actions that residents in your area can take to reduce stormwater pollution?		
	1	Yes	77% Ask Q5
	2	No	14% Skip to Q6
	98	Not sure	8% Skip to Q6
Q5	What actions can they take to reduce stormwater pollution? Probe: Any others? Do NOT read options. Continue to probe up to 5 responses.		
	1	Pick up trash and litter that is in the gutter near their property/Prevent trash and litter from getting into gutter	26%
	2	Dispose of hazardous wastes properly	20%
	3	Use fewer toxic chemicals for gardening, or switch to more environmentally friendly options	20%
	4	Use fewer toxic chemicals for household cleaning, or switch to more environmentally friendly options	12%
	5	Reduce/Reuse/Recycle	13%
	6	Don't use disposable plastic shopping bags, food or beverage containers	2%
	7	Maintain septic system properly	4%
	8	Pick up after pet	8%
	9	Maintain car to prevent oil leaks	10%
	10	Recycle used motor oil	14%
	11	Vegetate bare spots in yard so soil does not wash away	3%
	12	Wash car at a car wash or on lawn. not in driveway or on the street	13%
	13	Use a broom to clean driveway or sidewalk rather than spraying it with a hose	3%
	98	Not sure	13%
	99	Refused	0%

<b>Section 6: Reducing Stormwater Pollution – Personal Behavior</b>			
We recognize that people have very demanding schedules and lifestyles. Making changes to reduce stormwater pollution can be difficult for many people, and impossible for others. For these next few questions, please give us your honest opinions.			
<b>Q6</b>	In the past 12 months, have you taken any actions specifically for the purpose of reducing stormwater pollution?		
1	Yes	36%	Ask Q7
2	No	61%	Skip to Q8
98	Not sure	3%	Skip to Q8
99	Refused	0%	Skip to Q8
<b>Q7</b>	What actions did you take to reduce stormwater pollution? <i>Probe: Any others? Do NOT read options. Allow up to 3 responses.</i>		
1	Picked up trash and litter that is in the gutter near their property/Prevented trash and litter from getting into gutter	19%	
2	Disposed of hazardous wastes properly	16%	
3	Used less toxic chemicals for gardening, or switched to more environmentally friendly options	13%	
4	Used less toxic chemicals for household cleaning, or switched to more environmentally friendly options	13%	
5	Reduced/Reused/Recycled	19%	
6	Reduced use disposable plastic shopping bags, food or beverage containers	4%	
7	Maintained septic system properly	1%	
8	Picked up after pet	5%	
9	Maintained car to prevent oil leaks	8%	
10	Recycled used motor oil	17%	
11	Vegetated bare spots in yard so soil does not wash away	7%	
12	Washed car at a car wash or on lawn, not in driveway or on the street	22%	
13	Used a broom to clean driveway or sidewalk rather than spraying it with a hose	7%	
98	Not sure	1%	
99	Refused	0%	

Q8	Looking forward to the next 12 months, are there any actions that you are willing to take to reduce stormwater pollution?									
	1	Yes	64%	Ask Q9						
	2	No	24%	Skip Q10						
	98	Not sure	11%	Skip Q10						
	99	Refused	1%	Skip Q10						
Q9	<p>Some actions are easier for people to take than others. As I read each of the following actions, please indicate how difficult it would be for you to take this action using a scale from one to five. A one means that it would be easy for you to take the action, whereas a five means it would be very difficult for you to take the action. You can use any number between one and five. If the action doesn't apply to you for some reason, just say so.</p> <p><i>Make sure respondent understands the scale.</i></p>									
	<i>Randomize</i>		Easy (1)	2	3	4	Very Difficult (5)	Doesn't Apply	Refused	Mean Score
A	Pick up trash and litter that is in the gutter near your property		70%	13%	5%	1%	3%	8%	0%	1.39
B	Dispose of household hazardous wastes by taking them to a collection center		59%	18%	13%	5%	4%	1%	0%	1.74
C	Use gardening products that are less toxic and better for the environment		61%	20%	9%	2%	4%	5%	0%	1.61
D	Use household cleaning products that are less toxic and better for the environment		66%	21%	9%	1%	2%	0%	0%	1.51
E	Reduce your use of disposable plastic shopping bags, food or beverage containers by at least 25%		58%	21%	13%	4%	3%	1%	0%	1.73
F	Pick up pet waste on your property and put it in the trash, even if it is not from your pet		70%	15%	6%	1%	5%	4%	0%	1.52
G	Fix your car immediately if you notice any oil stains on your driveway or under your car		52%	19%	16%	5%	6%	2%	0%	1.91
H	Recycle your used motor oil		76%	7%	4%	2%	2%	10%	0%	1.31
I	Wash your car at a carwash or on your lawn, not in your driveway or on the street		68%	12%	7%	4%	6%	4%	0%	1.62
J	Fix your sprinklers so they do not wash soil into the street		59%	15%	6%	1%	4%	16%	0%	1.53
K	Keep your trash and recycling bins covered to prevent litter from blowing into the street		93%	3%	1%	0%	3%	1%	0%	1.16
L	Vegetate bare spots in your yard so that soil does not wash away		51%	16%	17%	6%	6%	3%	0%	1.93
M	Use a broom to clean your driveway or sidewalk rather than spraying it with a hose		77%	9%	6%	1%	3%	4%	0%	1.37

Section 7: Pollution-Causing Activities									
Q10	How often do you see the following in your neighborhood: _____? At least once per week, two to three times per month, once per month, several times per year, or never?								
	<i>Randomize</i>	At least once per week	2 to 3 times per month	Once per month	Several times per year	Never	Doesn't Apply	Refused	
A	Dog waste being left in the street, sidewalk, or gutter	27%	8%	8%	13%	40%	3%	0%	
B	Cars being washed in the driveway or in the street	29%	15%	18%	16%	20%	1%	0%	
C	People washing or blowing leaves or yard waste off their property into the street or gutter	24%	9%	16%	13%	36%	2%	0%	
D	People using pesticides or fertilizers on their lawns or gardens	15%	9%	16%	22%	31%	5%	0%	
E	Trash bins left uncovered so that litter is blown into the street	14%	5%	11%	15%	53%	1%	0%	
F	People hosing down their driveway or the sidewalk to clean it	17%	11%	17%	17%	36%	1%	1%	
G	People pouring or spilling motor oil into the street or on the ground	1%	1%	2%	5%	88%	2%	1%	
H	People washing paint brushes in the street or gutter	2%	1%	4%	6%	84%	3%	0%	
I	Driveways or parking spaces that have fresh oil spots due to vehicle oil leaks	20%	10%	10%	17%	38%	4%	1%	
Q11	Prior to taking this survey, were you aware that there was a local hotline you could call to report activities that are causing stormwater pollution?								
	1	Yes						17%	
	2	No						82%	
	98	Not sure						1%	
	99	Refused						0%	
Q12	If someone in your neighborhood was causing stormwater pollution, would you be willing to dial an anonymous hotline so that the person could be notified to stop the activity?								
	1	Yes						69%	
	2	No						24%	
	98	Not sure						7%	
	99	Refused						0%	

Section 8: Media & Message Exposure			
Q13	Let's change gears a bit. In the past three months, have you heard, read, or seen any new stories or public service announcements about stormwater pollution and ways that residents can prevent it?		
	1	Yes	38% Ask Q14
	2	No	61% Skip to Q17
	98	Not sure	2% Skip to Q17
Q14	Where did you see or hear the public service announcement? <i>Don't read choices. Probe: Any other sources? Record all mentions.</i>		
	1	Television	66%
	2	Radio	13%
	3	Newspaper	26%
	4	Website	1%
	5	Brochure	5%
	6	Other source	14%
	98	Not sure	4%
Q15	Did the public service announcement have a character or mascot in it?		
	1	Yes	51% Ask Q16
	2	No	25% Skip to Q17
	98	Not sure	24% Skip to Q17
Q16	Can you name or describe the character? <i>Don't read options.</i>		
	1	Sammy the Steelhead	40% Skip to D1
	2	A fish/trout	44% Skip to D1
	3	Other	9% Ask Q17
	98	Not sure	7% Ask Q17
Q17	Prior to taking this survey, do you recall seeing or hearing a public service announcement in which a fish called "Sammy the Steelhead" talked about ways to prevent stormwater pollution?		
	1	Yes	39%
	2	No	58%
	98	Not sure	2%

**Section 9: Background & Demographics**

Thank you so much for your participation. I have just a few background questions for statistical purposes.

D1			How long have you lived in San Luis (Lew-iss) Obispo (O-biss-po) County?
1	Less than 1 year		4%
2	1 to 4 years		12%
3	5 to 9 years		14%
4	10 to 14 years		17%
5	15 years or longer		52%
99	Refused		1%
D2			In what year were you born? Recoded into age categories shown below.
	18 to 24		17%
	25 to 34		14%
	35 to 44		19%
	45 to 54		18%
	55 to 64		11%
	65 and over		18%
	Refused		2%
D3			How many children under the age of 18 do you have in your household?
	None		51%
	One		13%
	Two		20%
	Three or more		12%
	Refused		3%
D4			Do you own or rent your residence?
1	Own		67%
2	Rent		28%
99	Refused		5%

D5 Which of the following best describes your home?		
1	Detached, single-family home	73%
2	Townhome	6%
3	Condominium	3%
4	Apartment	4%
5	Mobile home	8%
99	Refused	5%
D6 What is the last grade or level you completed in school? ( <i>Don't read choices</i> )		
1	Elementary (8 or fewer years)	1%
2	Some high school (9 to 11 years)	7%
3	High school graduate (12 years)	16%
4	Technical / Vocational school	2%
5	Some college	27%
6	College graduate	23%
7	Some graduate school	3%
8	Graduate, professional, doctorate degree (DDS, DVM, JD, LLM, MA, MS, MBA, MD, PhD)	17%
99	Refused	4%
D7 What ethnic group do you consider yourself a part of or feel closest to? <i>Read list if respondent hesitates.</i>		
1	Caucasian/White	69%
2	Latino/Hispanic/Mexican	14%
3	African-American/Black	2%
4	American Indian or Alaskan Native	2%
5	Asian—Korean, Japanese, Chinese, Vietnamese, Filipino, or other Asian	1%
6	Pacific Islander	1%
7	Mixed Heritage	4%
98	Other	2%
99	Refused	7%
Those are all of the questions that I have for you. Thanks so much for participating in this important survey!		

Post-Interview		
S1	Gender	
	1	Male
	2	Female