

**Findings from
Opinion Research**

**2008
SAN DIEGO
STORM WATER SURVEY**

**Conducted for
Think Blue, City of San Diego**



**GOODWIN SIMON VICTORIA RESEARCH
with Statistical Analyses by Action Research, Inc.**

April, 2008

TABLE OF CONTENTS

TABLE OF FIGURES AND TABLES.....	2
METHODOLOGY	4
EXECUTIVE SUMMARY	7
DETAILED FINDINGS	16
A. Order of Findings.....	16
B. Familiarity with “Think Blue San Diego”	17
C. Importance Of Issues Facing San Diego	21
1. Most Important Environmental Problem In San Diego.....	21
2. Importance Of Other Specific Issues In San Diego.....	23
D. Rating the City on Storm Water Issues	26
E. Polluting Behaviors.....	29
F. Frequency Of Seeing Polluting Behavior In The Neighborhood	32
G. Familiarity With Issues Related To Storm Water Pollution.....	35
1. Do You Live in a Watershed?	35
2. Familiarity with Term “Storm Drain”	36
3. Is Storm Water Treated?	38
4. Awareness of Problems Caused by Pollution in Storm Drains	41
5. Familiarity with San Diego City Actions to Prevent Storm Water Pollution	42
H. Familiarity with Specific “Think Blue” Messages.....	44
1. Familiarity with the “Yellow Ducks” Commercial	44
2. Familiarity with “Keep Mission Bay Clean and Safe”	45
3. Familiarity With Specific Think Blue Elements	46
I. Persuasiveness of Think Blue Taglines	48
J. Perceived Sources of Pollution.....	51
K. Personal Norms.....	57
L. Barriers to Action	59
M. Motivations for Environmental Concern.....	64

TABLE OF FIGURES AND TABLES

FIGURES

Figure 1: Ever Heard the Slogan “Think Blue San Diego?”	17
Figure 2: Where People Saw/Heard “Think Blue San Diego?”	19
Figure 3: What is “Think Blue San Diego” Asking You To Do?”	20
Figure 4: What Is The Most Important Environmental Issue Facing San Diego?.....	22
Figure 5: Percent Rating Each Problem as Very or Somewhat Serious.....	24
Figure 6: Rating the Job the City is Doing on 1-10 Scale	27
Figure 7: Percent Participating in Potentially Polluting Behaviors	29
Figure 8: Frequency of Observing Polluting Behaviors (Mean Score on 1-10 Scale)	32
Figure 9: Do You Live in a Watershed or Not?.....	35
Figure 10: Have You Heard the Term “Storm Drain” Before this Call?	37
Figure 11: Is Storm Water Treated or Not?	39
Figure 12: What is the Main Problem Caused by Polluted Water Entering Storm Drains?.....	41
Figure 13: In 2007, Did You See or Hear Anything About Steps the City is Taking to Prevent Storm Water Pollution?	42
Figure 14: Do You Recall Seeing Any Television Commercials With Yellow Ducks?	44
Figure 15: Do You Recall Seeing Or Hearing “Keep Mission Bay Clean and Safe?”	45
Figure 16: Have You Seen Any Of The Following From The Think Blue program?	46
Figure 17: Persuasiveness of Think Blue Slogans for Keeping Pollution out of Storm Drains.....	48
Figure 18: Seriousness of Storm Drain Pollutants	51
Figure 19: Willingness to Take Actions to Prevent Pollution (Mean Scores on 1-10 Scale)	54
Figure 20: Norms.....	57
Figure 21: Percent Saying Each Reason Applies to Them.....	60
Figure 22: Mean Motives for Environmental Concern	65
Figure 23: Residents by Primary Environmental Concern	66
Figure 24: Liking for “Think Blue” Messages by Environmental Concern	68

TABLES

Table 1: Methodology	5
Table 2: Watersheds by Zip Code	6
Table 3: Have You Ever Heard the Slogan Think Blue San Diego?	18
Table 4: Do You Live in a Watershed?	36
Table 5: Before This Call, Were You Familiar with the Term “Storm Drain?”	38
Table 6: Is Storm Water Treated?	40

METHODOLOGY

Think Blue San Diego, a program of the San Diego Storm Water Pollution Prevention Division, contracted with Goodwin Simon Victoria Research (GSVR) to conduct a telephone survey of adult residents living in San Diego. The purposes of the survey include:

- To explore attitudes about pollution of water in storm drains.
- To assess awareness of Think Blue outreach activities and the possible impact of these activities on reported pollution-causing behaviors.
- To explore barriers to behavioral change that might reduce storm water pollution.
- To assess different potential motivations for change, including those that address barriers, and
- To test ideas for improving Think Blue outreach activities.

This study was conducted between March 13 and March 22, 2008. GSVR conducted 800 telephone interviews with adult residents randomly identified from across the city using a random-digit-dial methodology, in which a random list of all active residential telephone numbers served as the sample.

The margin of error for citywide results is plus or minus 3.4% at a 95% confidence level. That is, if this survey were to be repeated exactly as it was originally conducted, then 95 out of 100 times the responses from the sample (expressed as proportions) would be within 3.4% of the actual population proportions.

Results were weighted slightly by age to match U.S. Census data. Interviews were conducted in both English and Spanish.

This report includes advanced statistical analysis provided by Action Research, our very able partner in the Think Blue research team.

Table 1: Methodology

Technique	Telephone interviewing
Interview Length	21 minutes
Universe	Adult residents of San Diego
Field Dates	March 13 to March 22, 2007
Sample	Random-digit-dial
Sample Size	800
Margin of Error	+/- 3.2% for the sample overall
Languages	English and Spanish

Many questions in this study were also asked in the survey we conducted for the city last year. However there are three factors to consider in comparing results from the 2007 and the 2008 studies:

First, we changed the screening methodology. In 2007, we simply asked potential respondents if they lived in San Diego or not. In 2008, those who said they did not live in San Diego were asked a follow-up question: "In what city do you live?" Those who mentioned locations that are in fact within the city of San Diego, such as Encanto, San Ysidro, or La Jolla were included in the study. In total, 8.3% of the respondents we included in the survey were included as a result of this follow-up question. Presumably, some or all of these people would have been excluded in 2007.

Second, we changed the sampling methodology to improve our ability to explore results by watershed (as defined by zip codes). Specifically, our sample included residents of all the zip codes in the watersheds (as defined by Think Blue staff), and we then screened residents to ensure that they lived in the city of San Diego. These two changes in sampling and screening resulted in a slightly different geographic distribution of respondents in 2008 compared to the 2007 survey.

Third, we changed the wording or scale for some of the questions we asked in 2007 to improve the potential for advanced analysis by Action Research. In the report, we indicate those questions in which the wording or scale changed.

For these reasons, comparisons between the 2007 and 2008 study findings must be made with caution.

In this report, we break out results by watershed based on zip codes. Since watersheds do not correspond directly with zip codes, findings by watersheds are necessarily inexact. The following are the zip codes we used for each watershed:

Table 2: Watersheds by Zip Code

Watershed	Zip Code
San Diego Bay	91902, 91911, 91913, 91915, 91945, 91950, 91977, 92101, 92102, 92103, 92104, 92105, 92106, 92017, 92113, 92114, 92115, 92116, 92118, 92133, 92134, 92135, 92136, 92139, 92140, 92152, 92154,
Tijuana River	91932, 92152, 91977, 92154, 92173
Mission Bay	92037, 92109, 92110, 92117, 92122, 92145
San Diego River	91942, 92020, 92103, 92108, 92111, 92115, 92119, 92120, 92123, 92124, 92145
Peñasquitos River	92014, 92064, 92121, 92126, 92128, 92129, 92130, 92131
San Dieguito River	92014, 92025, 92029, 92065, 92067, 92075, 92127, 92128

Note that some zip codes are found in more than one watershed.

This report presents results broken out by subgroups of adult residents (e.g., by men versus women or by zip code) only if the differences are both statistically significant using standard significance testing, and are of relevance.

EXECUTIVE SUMMARY

OVERVIEW AND RECOMMENDATIONS

The survey of 800 adult residents living in San Diego was conducted between March 13, and March 22, 2008, with a margin of error of plus or minus 3.4% at a 95% confidence level. We used a random digit dial sampling methodology and the survey was conducted in both English and Spanish.

At a most basic level, the survey demonstrates that San Diego residents have a high level of concern about storm water pollution and a general willingness to take actions to prevent it. More than 75% of residents say that pollution of the ocean, bay, and beaches is a “very important” issue facing the city. A similarly high percentage of residents also report that pollution in storm drains specifically is very important. These concerns rank at the top of the list of pressing local issues, rivaling concerns about the quality of public schools and deteriorating city infrastructure.

We also found that residents have a high willingness to take actions to help prevent storm water pollution. Ratings of willingness across six specific behaviors were rated higher than the scale’s mid-point. Residents were especially willing to engage in such behaviors as sweeping instead of hosing sidewalks and driveways, fixing car leaks, fixing sprinklers, and picking up litter and trash. More than half of all residents said they would definitely take these actions (rated as a 10 on a 1 to 10 scale).

Residents also showed personal obligations toward doing the right thing to prevent storm water pollution. More than ninety percent of all residents agreed that it would bother them if they saw a neighbor doing something that caused pollution of storm drain water, and this same percentage agreed that they would be embarrassed if someone saw them personally doing something to pollute.

Despite a strong personal obligation to do the right thing, residents did not feel as strongly that others felt an obligation to do the right thing. More than half of residents believed that their neighbors wouldn’t care if they were causing pollution of storm drains.

Despite concern for storm drain pollution, residents are not very knowledgeable about how the storm drain system works. Although 88% were familiar with the term “storm drain,” only 9% knew that they lived in a watershed, and fewer than half (39%) knew that storm drain water is not treated. Although overall knowledge was low, the highest level of knowledge was among men over 50. This is the same pattern seen in the 2007 survey.

The survey also showed that residents continue to give the city moderate ratings for the job it is doing in preventing pollution of storm water and pollution of the beaches. The mean rating for the city’s work in these areas is about 5, on a scale of 1 to 10. Ratings in these areas did not change significantly from the 2007 survey.

The survey also shows a high level of market penetration for messages about storm water pollution, and evidence that outreach activities by the city’s storm water division are getting through. Sixty-percent of residents reported they saw or heard something in 2007 about steps the city is taking to prevent storm drain pollution. Forty-five percent say they have heard the slogan “Think Blue San Diego” – about the same as in 2007. The largest increases in familiarity with the slogan were seen among seniors, people without college degrees, and Latinos.

The survey suggests that Think Blue activities have a positive impact: 46% of those who said they had heard about the Think Blue campaign knew that storm water is not treated, compared to 34% who had not heard about Think Blue. Another example is that residents who saw the TV commercial with the yellow ducks going down into the storm drain rated litter, sewage spills, and grass clippings as significantly more serious than did those who did not see the commercial

Although a sizable number of residents engage in some type of polluting behavior, the percentage of residents engaging in any one type of behavior is relatively small. The most frequently reported behavior was car washing, but less than half of residents reported that they wash their cars at home. From the 2007 survey, there was a 5% decrease in the percentage of residents who hose down their driveway and a 2% decrease in residents using pesticide or weed killers. We also see a small (3%) increase in dog ownership from 2007. However, none of these differences are statistically significant.

Sizable proportions report seeing car washing, dog waste, yard waste, and litter in their neighborhoods. Although the frequency of observed car washing on driveways

decreased slightly from 2007 (by 9%), reported levels of visible community litter increased by nearly 16%.

The overall barriers to preventing storm water pollution are low, with less than 50% of residents reported that any of the listed barriers applied to them. The primary barriers to engaging in preventative action appear to be a belief that government should take care of the problem, lack of time, and lack of information. Interestingly, while we have seen that most people want to do the right thing and care about storm water pollution prevention, about 30% of residents believe that no one else is doing anything to prevent pollution. The top rated barriers did not change much from 2007, with the exception of the belief about government responsibility – this was a new item added in the 2008 survey, so no comparisons can be made on this topic.

As in 2007, we see in general stronger interest in undertaking efforts to reduce storm water pollution among women than men, among Latinos compared to whites, and among renters and less educated residents compared to homeowners and more educated residents. At the same time, we often see lower levels of knowledge and higher levels of polluting behavior among these populations. This suggests a sizable payoff for focusing efforts on minority and lower income communities, and on renters.

We know that the “Think Blue” television ads are recognized by more than half of all residents. The majority of residents who had heard about “Think Blue” had seen it on television. While the “Think Blue” message is getting out, there is evidence to suggest that the messaging needs to include a specific call to action regarding the desired pollution prevention behaviors. Only about one in four residents had heard the term Think Blue and knew that it had something to do with water pollution or storm drains. Only about 4% overall correctly linked Think Blue with storm drain pollution. About 5% falsely believed it was a call to conserve water.

Encouraging behaviors such as picking up litter, fixing oil leaks, fixing sprinklers, and sweeping up driveways seem most appropriate for public education. While there is widespread reporting of improper car washing, there also seems to be a lot of resistance to altering this behavior. For example, only 22% think that runoff from washing cars is a very serious source of storm drain water pollution, and about the same percentage think that water washed from driveways into the street is a serious

pollutant. Even fewer think that overwatering of lawns, yard trimmings, and dirt from property are serious sources of pollution.

The most powerful motivation for taking action to reduce storm water pollution were concerns about the consequences for children, future generations in San Diego, and health. The lowest rated motivations were concerns for visitors to San Diego and migrating birds.

We know that most residents already see pollution of the ocean as an important problem. We also know that residents recognize that pollution of neighborhood storm drains contributes to pollution of the ocean. But, the motivations for their concern differ and messages should be targeted to address these differences. In particular, we know that women are more likely to be motivated by biospheric concerns (e.g., concern for living things) whereas men are more likely to be motivated by altruistic concerns (e.g., children, future generations). Messages should also address the perceived barriers of lack of time and lack of information.

Finally, residents strongly prefer the taglines “a cleaner San Diego starts at your door” and “you are the solution to storm drain pollution.” We find little variability across groups in preference for the different messages. Overall, the messages are rated highest by those with biospheric environmental concern and Latinos.

KEY FINDINGS

Strong Awareness of Storm Water Pollution

- Similar to 2007, the survey shows clearly that residents of San Diego take storm water pollution quite seriously, and see it as a major problem facing the city. Fully 76% say that pollution of the city’s oceans, bays, and beaches is a “very important” issue, and 77% say that polluted water in storm drains is an important problem. These figures are nearly equivalent to concerns about the quality of public education and far exceed the proportion who said that traffic was a very important issue for the city.
- Women, Latinos, those with less education, and non-whites appear to be most concerned about storm water pollution.

Broken Water and Sewer Pipes Also Major Issue

- Eighty-one percent consider “deteriorating and broken city water and sewer pipes” to be a very important issue facing the city – equivalent to concerns about public education.

Moderate Ratings for the City on Storm Water Pollution Prevention

- The survey also showed that residents continue to give the city moderate ratings for the job it is doing in preventing pollution of storm water and pollution of the beaches. The mean rating for the city’s work in these areas is about 5, on a scale of 1 to 10. Ratings in these areas did not change significantly from the 2007 survey.
- Only 20% rate the city as a 1, 2, or 3 (the lowest ratings) when it comes to preventing pollution in storm drains, while 15% rate the city as an 8, 9, or 10 (the highest ratings) in this area.
- There is no significant difference in ratings for the city between those familiar with the Think Blue campaign and those who have not heard of it.

Residents Engage in Polluting Behaviors

- Nearly half of residents, 45%, say they wash a vehicle at home. This includes more homeowners than renters, as well as those who engage in construction or landscaping projects.
- More than a third (35%) have a dog at home. Dog ownership may have increased slightly from 2007 and owners are most likely to be under age 65, whites compared to African Americans and Asians, and homeowners compared to renters.
- Almost one-third (31%) of single family home dwellers say they use pesticides or weed-killers on their gardens, especially men aged 50+, residents of the San Dieguito River watershed, and those who do construction or landscaping projects at home.

-
- From the 2007 survey, there was a 5% decrease in the percentage of residents who hose down their driveway, and a 2% decrease in residents using pesticide or weed killers. We also see a small (3%) increase in dog ownership from 2007. These figures are not, however, statistically significant.

Polluting Behaviors Observed

- The most frequently observed behaviors are people washing their cars on the driveway or in the street, dog waste being left on the sidewalk, yard waste, and litter in the neighborhood.
- The least observed behaviors are soil being washed onto the street and pesticide use.
- These behaviors are most often seen by residents under 50 and those who had heard the “Think Blue San Diego” slogan

Lack of Knowledge Prevalent on Storm Water Issues

- Few residents of San Diego – just 8% -- know that they live in a watershed.
- The majority of residents – 88% -- know the term “storm drain.”
- Only 15% say that storm drain water is treated, compared to 17% in 2007. Just over one-third (39%) knew that storm water was not treated. This is significantly lower than the 2007 figure in which nearly half (46%) of residents knew. In general, women, younger residents, and residents with less education were more likely not to know that storm water is not treated.
- Many residents are aware that neighborhood storm drains contribute to pollution of San Diego’s creeks and ocean. Forty-five percent of residents mentioned some impact on the bay, beach, or ocean as a main problem caused by pollution entering a storm drain. This figure indicates awareness among residents that the storm drain is connected to these bodies of water.

Awareness of Efforts to Reduce Storm Drain Pollution

- Just over one-third (35%) said that in 2008 they saw or heard something about the steps the city was taking to prevent pollution of storm water, a figure nearly identical to that found in the 2007 survey (36%). Awareness is lower among younger residents, women, and Latinos.
- Forty-five percent said they had heard the slogan “Think Blue San Diego.” This is down slightly from the 54% who said they had heard this slogan in the 2004 survey, but almost equal to what was reported in the 2007 survey. Awareness is lower among younger residents.
- Awareness of Think Blue increased from 2007 among seniors, people without college degrees, and Latinos.

Preferred Slogans/Tag Lines for Think Blue: A Cleaner San Diego Starts at Your Door, You’re the Solution to Storm Drain Pollution, and Change for the Better Begins with You

- The survey tested six potential tag lines, and all the tested messages were rated above the midpoint
- “A Cleaner San Diego Starts at Your Door,” “You’re the Solution to Storm Drain Pollution,” and “Change for the Better Begins with You” were the highest rated messages. These messages were particularly popular among Latinos and women.
- Residents concerned about the consequences of pollution for the effect on living things (biospheric concerns) rated all of the tested messages more positively than those with other concerns.

TV Commercials are Most Memorable

- More than half of residents recalled seeing the commercial with yellow ducks going down the storm drains. Latinos and residents between 35 and 64 were most likely to remember this commercial.

-
- Eighty percent of residents who heard the “Think Blue San Diego” slogan saw it on TV.
 - Think Blue messages were seen on mobile billboards were seen by one-third of residents. This media outlet was particularly memorable among Latinos and residents of the Tijuana River watershed.
 - Only 8% remembered seeing the “Think Blue” website. Latino men were the most likely group to have seen the website.

Strong Personal Obligation to Do the Right Thing Reduce Storm Water Pollution

- Over 90% of residents felt a strong personal obligation to do the right thing to prevent storm water pollution. More than ninety percent of all residents agreed that it would bother them if they saw a neighbor doing something that caused pollution of storm drain water, and this same proportion agreed that they would be embarrassed if someone saw them personally doing something to pollute. But 54% said that their neighbors would not care if they were causing pollution of water in storm drains.

Strong Willingness to Take Actions to Reduce Storm Water Pollution

- The majority of residents said they would definitely be willing to take the specific actions we listed to reduce pollution of storm drains. Those actions that residents were most likely to take include sweeping instead of hosing, fixing car leaks, fixing sprinklers, and picking up litter.
- There was considerably less willingness to take the car to a carwash or to pick up other people’s dog waste.
- In general, women reported a stronger willingness to undertake these actions. Asians and African Americans are very unwilling to pick up dog waste from the front of their home.

Government Responsibility, Lack of Time and Information Top Barriers to Participation

-
- We asked residents about seven possible barriers to taking action to stop storm water pollution. The top barriers were a belief that it is a problem for government to take care of, lack of time, and lack of knowledge. These barriers were particularly strong among younger residents. Seniors were more likely to believe that pollution prevention behaviors were a hassle.
 - Lack of time and lack of information were top rated barriers in the 2007 survey as well.

Protecting Children, Future Generations, and Health are Top Motivations for Taking Action

- The most powerful motivation for taking action to reduce storm water pollution were concerns about the consequences for “children” (a mean of 9.0 out of 10), “future generations in San Diego” (a mean of 8.8), and “health” (a mean of 8.7). The lowest rated motivations were concerns for “visitors to San Diego” (7.4) and “migrating birds” (7.5)
- More women than men were motivated by environmental concerns, like pollution causing harm to animals and marine life.

DETAILED FINDINGS

A. Order of Findings

This report presents results in the following order:

- We begin by showing the familiarity of residents with “Think Blue” prior to hearing any of the survey items.
- Next, we look at how San Diego residents rank the importance of different issues facing the city, including storm water pollution.
- We then show how residents rate the job the city is doing in preventing storm water pollution.
- We then ask residents if they currently participate in activities that might cause storm water pollution, and then if they have observed pollution-causing behaviors in their neighborhoods.
- The next set of questions focuses on the level of knowledge residents have about storm water pollution and the city’s efforts to address it.
- We then ask about familiarity and liking for specific Think Blue message strategies and slogans.
- The next set of questions asks about the seriousness of various pollutants.
- We then explore the personal obligations held by residents with regards to storm water pollution.
- We move to identifying specific barriers to participating in activities that might reduce storm water pollution.
- Finally, we rate responses to different environmental motivations for reducing storm water pollution.

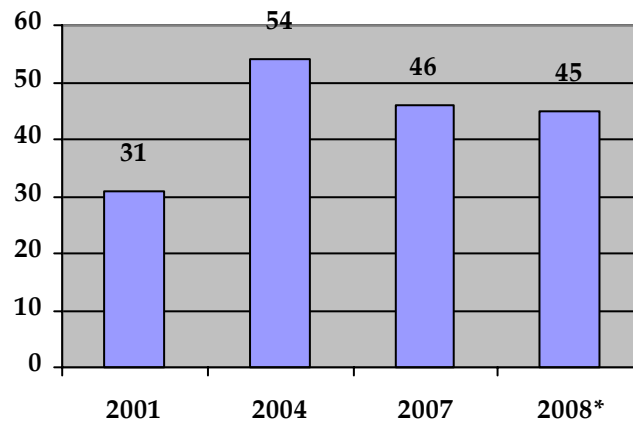
B. Familiarity with “Think Blue San Diego”

1. Have you seen or heard the slogan?

Prior to asking any other questions specific to the environment, storm drains, or storm water pollution, we asked residents if they had heard the “Think Blue San Diego” slogan in the past year.

Forty-five percent of residents said that they had heard the slogan “Think Blue San Diego” in the last year. This figure is similar to that obtained in the 2007 survey in which 46% said they had heard the slogan. Although this is still lower than the 54% found in the 2004 survey, it well above the 31% found in the 2001 survey.

Figure 1: Ever Heard the Slogan “Think Blue San Diego?”



*Note that the 2007 survey asked whether residents had *ever* heard the term, whereas the 2008 survey provided a one-year frame of reference.

Awareness of the Think Blue slogan varies as following:

- It is lowest among residents under 35 years of age (36%) compared to older residents (about 50%)
- It is lowest among residents of the San Dieguito River (37%) and Peñasquitos River (35%) watersheds

- It is higher among white renters (51%) than Latino renters (36%)
- It is higher among those who know that storm water is not treated (52%) compared to about 40% of those who didn't know this.

Variation of awareness about the Think Blue logo changed slightly from the 2007 survey. As seen in Table 3 below, the greatest increases in awareness from the 2007 survey include seniors, people without college degrees, and Latinos.

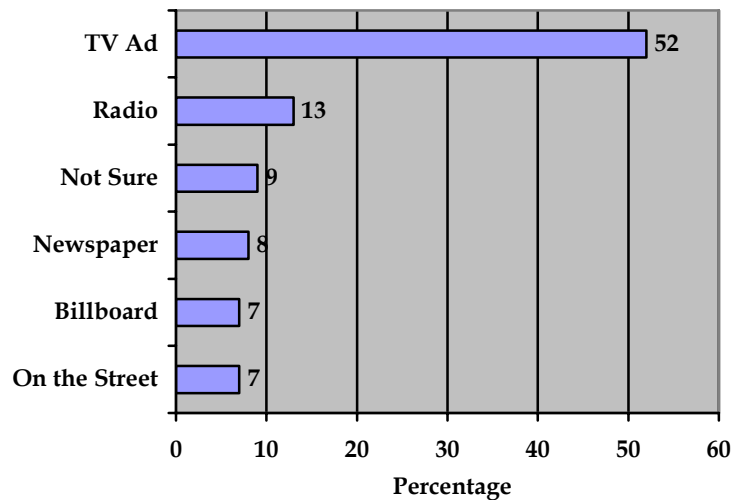
Table 3: Have You Ever Heard the Slogan Think Blue San Diego?

	<u>2007</u>	<u>2008</u>
Men	46	44
Women	46	45
18-34	44	42
35-49	49	46
50-64	51	45
65+	38	43
Men 18-49	46	36
Men 50+	47	53
Women 18-49	47	49
Women 50+	45	46
San Diego Bay watershed	48	48
San Diego River watershed	49	53
Mission Bay watershed	42	44
Tijuana River watershed	50	43
San Dieguito River watershed	44	37
Penasquitos River watershed	47	35
Less than college	36	44
Some college	55	45
College grad	46	48
Post college	45	38
White	50	48
Black	49	49
Asian	35	36
Latino	37	43
Homeowners	50	48
Renters	42	42
Single family home dweller	51	47
Apartment/condo dweller	42	42

2. Where people saw or heard the Think Blue slogan:

The majority of people recalled seeing the message on television (52%), and 13% heard the slogan on the radio. Other frequently reported sources were billboards (7%), newspaper (8%), and on the street drains, curbs, etc. (7%). Nine percent could not remember where they saw or heard the message.

Figure 2: Where People Saw/Heard “Think Blue San Diego?”



The groups most likely to see the “Think Blue San Diego” slogan on television are:

- People who know storm water is not treated (27%) compared to people who believe that it is treated
- People without college degrees (25%)
- Residents of the San Diego Bay (26%) and San Diego River (25%) watersheds.

The groups most likely to hear the “Think Blue San Diego” slogan on the radio are:

- White (9%)
- Those in the 35 – 49 age group (9%) compared to the 18 – 34 age group (4%)

- People between the ages of 18 and 35 (9%) compared to people over 35 or under 18 (5% or less).

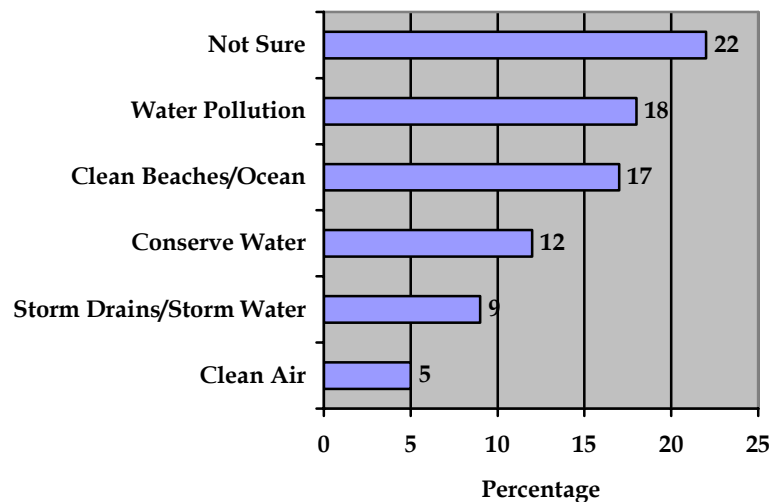
3. What is the “Think Blue San Diego” slogan asking you to do?

Respondents were asked to describe what they believed the “Think Blue San Diego” slogan is asking them to do. In other words, what call to action is conveyed by the message?

Twenty-two percent (22%) were not sure what the slogan is asking them to do. Several people believed the slogan wanted them do to something about water pollution (18%) or clean beaches/ocean (17%) specifically, or the environment more generally (17%).

Only 9% of people believed that the “Think Blue San Diego” slogan wanted them to do something specifically about storm drains or storm water. Yet, 12% of people believed it was a call to conserve water. This is an important finding and highlights the importance of including a specific call to action in future messaging.

Figure 3: What is “Think Blue San Diego” Asking You To Do?”



After we described the Think Blue program to respondents (as “the City of San Diego’s program to reduce pollution of the water in the city’s storm drains, creeks,

and our beaches and oceans”), we then asked a second time if they had heard about the program before the call. Now 55% say they remember the program, including 25% of those who initially said they did not recall it.

C. Importance Of Issues Facing San Diego

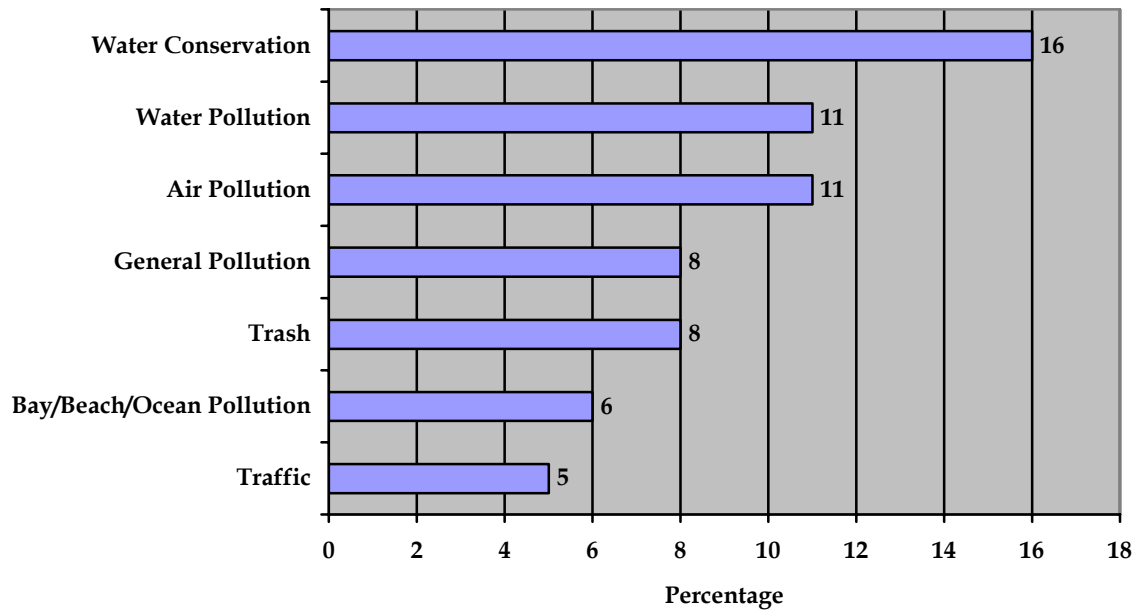
1. Most Important Environmental Problem In San Diego

Following the introductory items, we presented an open-ended item which asked residents to name what they believed was the most important environmental problem facing San Diego. Open-ended responses were coded into discrete categories.

The top environmental concerns of San Diego residents were water conservation/drought (16%), water pollution generally (11%), smog/air pollution (11%), general pollution (8%), trash (8%), and bay, beach, or ocean pollution specifically (6%).

A combined 18% mentioned some type of water pollution, suggesting that this is a salient issue among San Diegans. Of the people who named water pollution as the most important problem, one-third mentioned bay, beach, or ocean pollution specifically.

Figure 4: What Is The Most Important Environmental Issue Facing San Diego?



The groups most likely to mention bay, beach, or ocean pollution as a significant environmental problem are:

- Residents of the San Diego River (7%) and San Diego Bay (6%) compared to residents of the Tijuana River (2%)
- Non-Latinos (7%) more than Latinos (3%).

The groups most likely to mention water pollution in general as a significant environmental problem are:

- Men with college degrees (15%) compared to men without college degrees (8%)
- Residents between the ages of 35-49 compared to older residents (9%)
- White men (13%) more than Latino men (5%).

2. Importance Of Other Specific Issues In San Diego

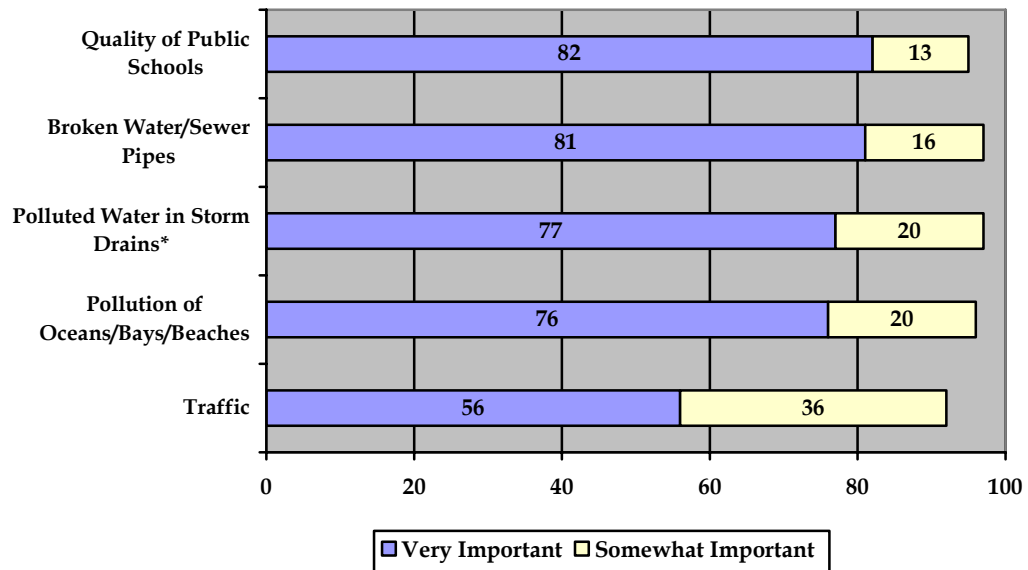
Next, we presented a battery of questions that asked residents to rate the importance of seven issues facing the city. The results show that residents see broken water and sewer pipes as a very important problem. Concern about pollution of the city's oceans, bays, and streams remained relatively stable from 2007 (77%) to 2008 (76%) whereas concern over schools and deteriorating infrastructure increased (from 77% in 2007 to about 82% in 2008). The increase in these figures is an indication of the high level of attention these issues have received among San Diego residents.

The important point is that residents rate issues such as polluted water in storm drains and pollution of oceans, bays, and beaches as a significantly important problem that rival concerns about the quality of public schools. Moreover, the level of concern for these issues far exceeds concern about traffic congestion.

This is a very important finding because it suggests that residents are greatly concerned about pollution of local waters. They are not only aware that the problem exists, but they rate it high in importance suggesting that there is a willingness to do something about it.

As shown in Figure 5, fully 76% of residents said that pollution of San Diego's ocean, bays, and beaches is a very serious problem, with another 20% rating it as a somewhat serious problem.

Figure 5: Percent Rating Each Problem as Very or Somewhat Serious



*Note that this item was modified from the 2007 survey which asked about “pollution of storm drains” instead of “polluted water entering storm drains.”

a. Broken or deteriorating city water and sewer pipes (81% very important)

The groups most likely to say that broken water and sewer pipes are a very serious problem are:

- Women (84%) compared to men (79%)
- African-Americans (91%) compared to whites (79%)
- Residents age 65 and older (90%) compared to younger residents (about 80%)
- Residents of the San Diego River watershed (87%)
- White homeowners (83%) compared to white renters (72%).

This pattern of results can be compared to the 2007 survey in which an identical question was asked. In 2007, 77% said that broken pipes were a very important problem and 18% believed it was a somewhat important problem. Although the

overall proportion increased in 2008, the characteristics of people for whom this is a serious problem are similar.

b. Pollution of storm drains in San Diego (77% very important)

The groups most likely to say that pollution of storm drains is a serious problem include:

- Women (83%) more than men (71%)
- Latinos (87%) more than non-Latinos (73%)
- Whites (70%) significantly less than all other ethnic groups
- Those without a college degree (81%) compared to those with a college degree (71%)
- Educated men (61%) significantly less than all other groups
- Residents under age 35 (82%)
- White men least often.

This pattern of results is comparable to the results of the 2007 survey, with one exception. In 2008, all Latinos (regardless of home ownership or gender) were more likely to say that pollution of storm drains was a serious problem than were whites. In the 2007 survey, the differences were seen only among Latino renters and Latino women. Note that the 2008 survey asked about the importance of “polluted water entering storm drains” whereas the 2007 survey asked about “pollution of storm drains” or “pollution of storm water.” As a result, these comparisons should be made with caution.

c. Pollution of San Diego’s oceans, bays, and beaches (76% very important)

The rating for pollution of the city’s oceans, bays, and beaches can be compared to results from the 2004 and 2007 surveys, in which an identical question was asked. There was virtually no change in results, with 77% in both the 2004 and 2007 surveys who rated this as a very serious problem, and 19 and 20% respectively who rated it as a somewhat serious problem.

The groups most likely to say that pollution of the city's ocean, bays, and beaches is very important are:

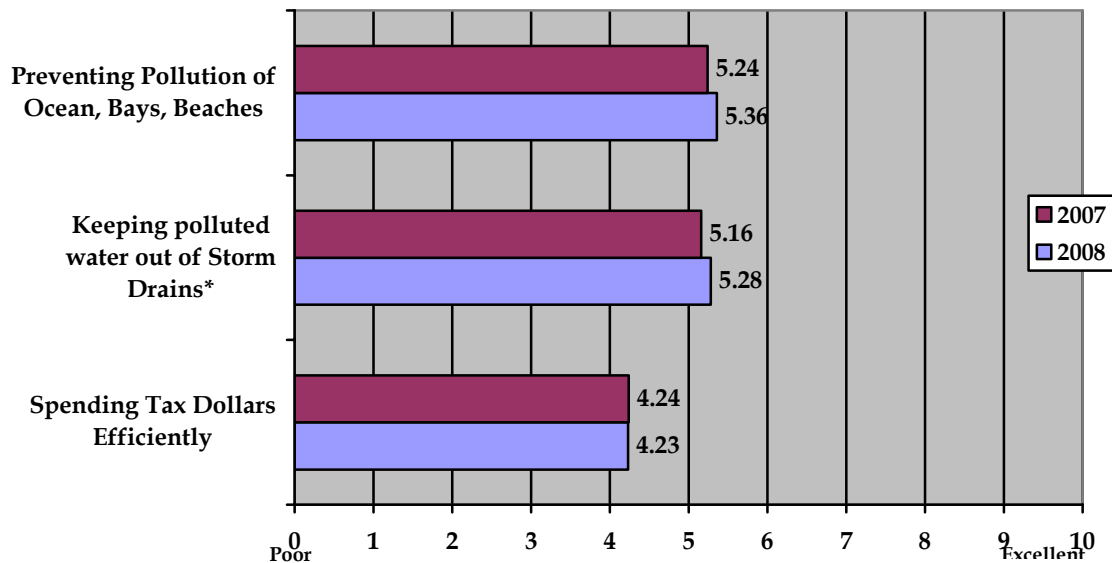
- Latinos (85%) compared to non-Latinos (72%)
- African Americans (87%) compared to whites (70%) or Asians (68%)
- Residents under the age of 35 (84%) compared to older residents (about 72%). Note that this pattern is the reverse of that found in the 2007 survey in which 82% of residents age 50 and older believed this issue was very important compared to 71% of younger residents.
- Both men (67%) and women (71%); the 2007 survey also showed no differences by gender except for white women who were more concerned than white men.
- Those with no college degree (81%) compared to those with advanced degrees (66%)
- Residents of the Tijuana River watershed (84%).

D. Rating the City on Storm Water Issues

We asked a battery of three questions asking residents to rate how the city is doing in preventing pollution in storm drains, in preventing pollution of San Diego's ocean, bays, and beaches, and as a contrast, in how the city is doing in spending tax dollars efficiently.

The question asked residents to rate each area on a scale of one to ten, where one meant that the city was doing a very poor job and a ten meant the city was doing an excellent job. In Figure 6, we present mean score results.

Figure 6: Rating the Job the City is Doing on 1-10 Scale



*Note that this item was modified from the 2007 survey which asked about “preventing pollution in storm drains.”

As in the 2007 survey, the mean scores for pollution prevention are in the 5s, indicating that about as many residents think the city is doing a good job as think the city is doing a poor job. In fact, the results are generally clustered around the midpoint.

Only 20% rate the city with a 1, 2, or 3 (the lowest scores) when it comes to preventing pollution in storm drains, with only 15% who rate the city with an 8, 9, or 10 (the highest scores) in this area. Nine percent were not sure. In 2007, 13% rated the city with an 8, 9, or 10 and 11% were not sure.

Only 19% rate the city with a 1, 2, or 3 for preventing pollution of the city’s oceans, bays, and beaches, and 16% gave the city an 8, 9, or 10 in this area. Five percent weren’t sure. By comparison, in 2007, 20%, rated the city with a 1, 2, or 3 and 14% gave the city an 8, 9, or 10 rating for this.

Ratings for these two pollution prevention efforts are showing a small positive trend with increases in the percentage who gave the city an 8, 9, or 10 in these two areas. The percentage of people who rate the city with a 1, 2, or 3 has remained relatively stable, but the percentage of unsure responses has decreased.

Ratings for the city's performance in these areas continue to outperform views of how well the city spends money. In both 2007 and 2008, 38% rated the city with a 1, 2, or 3 in this area.

1. Preventing pollution in storm drains (5.28 mean score)

Despite minor changes in the wording of the item, beliefs about how well the city is doing in preventing pollution in storm drains did not change significantly from 2007. Ratings are as follows:

- They are significantly more positive among those under age 50 (a mean score of 5.5) than among older residents (a mean score of 4.8)
- They are significantly more positive among those with no college degree (5.5) compared to those with a college degree (4.9)
- They are significantly higher among Latinos (5.9) compared to non-Latinos (5.0)
- They are significantly higher among those who think that storm water is treated (5.6) compared to those who know it is not treated (5.1)
- They are significantly less positive in the San Dieguito River watershed (4.8); in 2007, the lowest ratings came from the San Diego River and Mission Bay watersheds.
- There is no difference in ratings for those who have and have not heard of the Think Blue campaign.

2. Preventing pollution of San Diego's ocean, bays, and beaches (5.24)

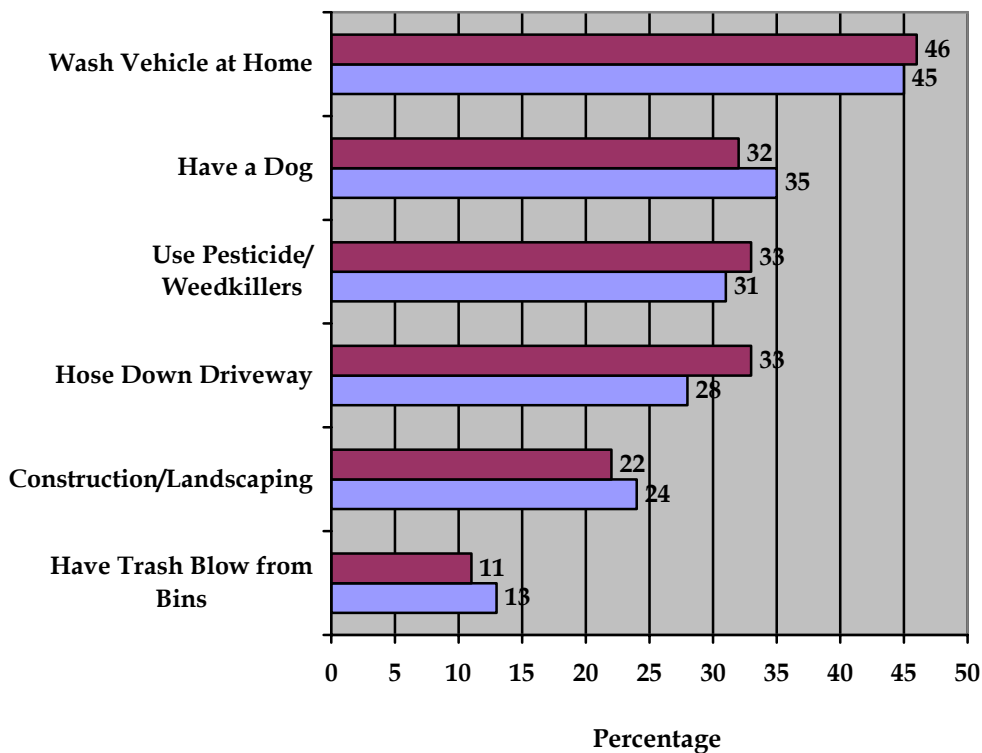
Ratings for how well the city is doing in preventing pollution of the city's oceans, bays, and beaches divides in similar fashion with one exception -- ratings are significantly less positive Mission Bay (4.8) and San Diego Bay (5.2) watersheds.

E. Polluting Behaviors

The survey asked residents about eight activities that might result in storm drain pollution. We found that sizable proportions of residents wash their vehicle at home, have a dog at home, use pesticides or weed-killers, and hose down their sidewalk or driveway. Smaller proportions say that they have yard waste or trash blowing from their garbage bins or have had major construction or landscaping at their home.

Figure 7 shows the percentage of residents participating in polluting behaviors in the 2007 survey compared to the 2008 survey. The 2008 results show a 5% decrease in the percentage of residents who hose down their driveway, and a 2% decrease in residents using pesticide or weed killers. We also see a small (3%) increase in dog ownership from 2007. These differences are not statistically significant.

Figure 7: Percent Participating in Potentially Polluting Behaviors



The overall pattern of findings mirrors that obtained in the 2007 survey.

1. We find the highest proportions that wash their vehicles at home among:

- Homeowners (57%) compared to renters (22%); in particular Latino homeowners (67%) followed by white homeowners (53%)
- Latino women (52%) and white men (48%) compared to white women (36%)
- Single family home dwellers (58%) compared to apartment/condo dwellers (17%)
- Residents in the Tijuana River (52%) and San Dieguito River (54%) watersheds. In 2007, the highest proportion was limited to residents in the Tijuana River watershed (68%)
- Those who also have construction projects (62%)
- Asians (56%) compared to African Americans (37%).

2. We find the highest proportion of dog ownership among:

- Those age 35 – 64 (42%) compared to seniors (23%) or those under 35 (30%)
- Whites (42%) compared to African Americans (20%) and Asians (18%)
- Homeowners (46%) compared to renters (17%) and single family home dwellers (47%) compared to apartment/condo dwellers (16%).

3. We find the highest proportion of those who report having trash and yard waste blow from their bins onto the street among:

- Men (14%) and women (12%) almost equally; in 2007 men reported this more often than women
- Across all age groups equally; in 2007 those under age 50 reported this more often than older residents
- Across all home types equally; in 2007, apartment/condo dwellers (16%) reported this more often than single family home dwellers (9%)

- Men with no college degree (17%)
- Residents in the San Diego Bay watershed (16%); in 2007 the highest proportion was among those living in the Tijuana River watershed (34%).

The following items were asked only of single family home dwellers.

4. We find the highest proportion of those who use pesticides and weed-killers among:

- Men over 50 (39%) compared to younger men
- Residents of the San Dieguito River (41%) and Penasquitos watersheds (42%)
- Those with a college degree (about 50%) compared to 23% of those with no college experience
- Whites (38%) compared to Asians (16%)
- People who are unsure what to do to prevent storm water pollution (37%)
- Those who have construction or landscaping projects at home (100%)

5. We find the highest proportions of those who hose down the driveway or sidewalk in front of their home among:

- Residents in the Penasquitos (37%) and San Dieguito (34%) watersheds
- Those who did not recall the “Think Blue” slogan (31%) compared to those who did (24%)
- Those who are unsure what to do to prevent storm water pollution (38%).

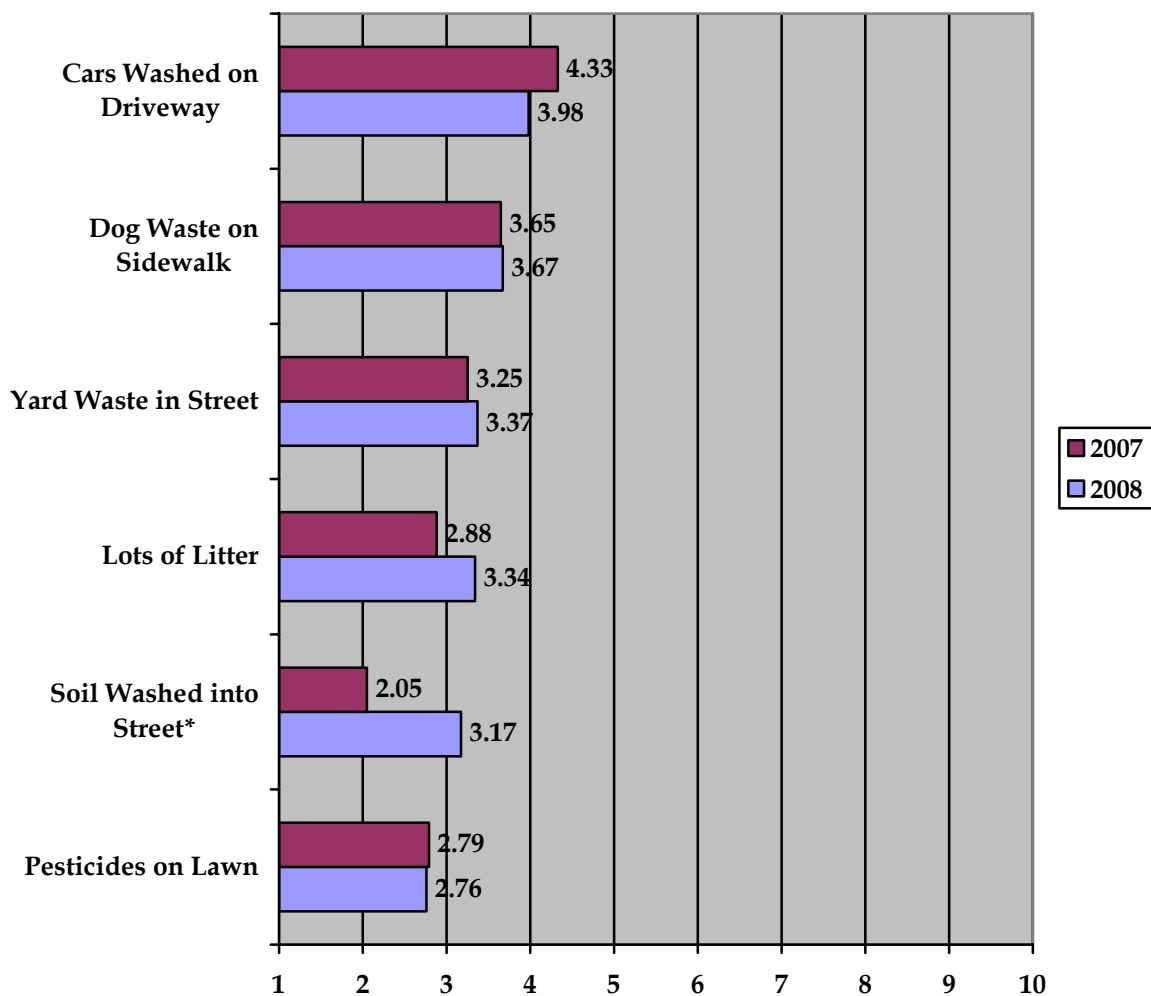
6. As in the 2007 survey, we find little significant variation in the proportion reporting construction or major landscaping projects at their homes. Higher proportions exist among:

- Residents of the San Diego River watershed (48%)

F. Frequency Of Seeing Polluting Behavior In The Neighborhood

We then asked residents how often they see various pollution-causing behaviors in their neighborhoods. The six items were drawn from a larger list of 12 behaviors used in the 2007 survey. Responses to the items were ranked on a scale of 1 (never see the behavior) to 10 (frequently see the behavior). The results are presented in Figure 8 using a mean score.

Figure 8: Frequency of Observing Polluting Behaviors (Mean Score on 1-10 Scale)



*Note that this item was modified from the 2007 survey which asked about “manure or soil being washed from lawns into the street” instead of “soil or dirt being washed into the street.”

Although the average frequency of all of the behaviors is low (less than 4 on a 10 point scale), the most frequently observed behaviors are people washing their cars on the driveway or in the street, and dog waste being left on the sidewalk. A second tier of frequency is yard waste being blown into the street, lots of litter in the neighborhood, and soil being washed into the street. While the frequency of car washing on driveways decreased slightly from 2007, the frequent presence of litter increased a bit.

Although it appears that there was a large increase in the amount of soil observed being washed into the street, this increase is very likely due to a change in the wording of the question from the 2007 to the 2008 survey. Specifically, the 2007 survey asked about the frequency of “manure or soil being washed from lawns into the street” whereas the 2008 survey asked more generally about “soil or dirt being washed into the street.” The proportions most likely to see each behavior in their neighborhood were similar to the pattern obtained in 2007.

1. Those most likely to observe cars being washed on the driveway or on the street include:

- Those under 50 (mean score of about 4.2) compared to older residents (about 3.4)
- African Americans (4.6) compared to whites (3.6)
- Homeowners (4.2) compared to renters (3.5)
- Latinos (4.3) compared to non-Latinos (3.6).

Only 21% say they never see this in their neighborhood.

2. Those most likely to observe dog waste being left on or near the sidewalk include:

- Those under age 50 (4.3) somewhat more than older residents (3.4)
- The San Diego River watershed (6.34); in 2007, the highest frequency was in the San Diego Bay Watershed (4.0 in 2007 and 3.9 in 2008)

About one in three (36%) say they never see this in their neighborhood.

3. Those most likely to observe yard waste or litter being washed or blown into the street include:

- People who saw/heard the “Think Blue” slogan (3.8) compared to those who did not (3.3).

Thirty-eight percent (38%) say they never see this in their neighborhood.

4. Those most likely to observe lots of litter in their neighborhood include:

- Those under age 50 (3.5)
- Residents in the Tijuana River (4.12) and San Diego Bay watersheds (3.9)
- Those who heard the “Think Blue” slogan (3.72).

About one in three 35% say they have never seen this in their neighborhood.

5. Those most likely to observe pesticide and weed-killers being used on lawns and gardens include:

- Latinos (3.2) compared to non-Latinos (2.53).

Forty-seven percent say they never see this in their neighborhood.

6. Those most likely to say they have seen soil or dirt being washed into the street are:

- Latino men (3.5)
- Residents in the San Diego Bay watershed (3.4)
- Those who heard the “Think Blue” slogan (3.5) compared to those who didn’t (3.0).

Forty-one percent say they have never seen this in their neighborhood.

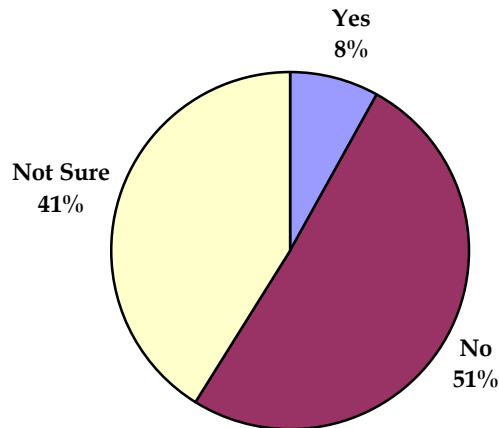
G. Familiarity With Issues Related To Storm Water Pollution

The survey asked four questions intended to gauge resident familiarity with issues related to storm water pollution. The first asked residents if they live in a watershed or not.

1. Do You Live in a Watershed?

Only 8% of adults in the city said they lived in a watershed. As shown in Figure 9, 51% percent said they did not live in a watershed, and 41% were not sure. This is the same pattern seen in the 2007 survey in which only 9% said they lived in a watershed, 45% said they did not, and 41% were not sure.

Figure 9: Do You Live in a Watershed or Not?



As seen in Table 4, the 2008 survey showed significant differences in awareness by: gender (men more than women), age (under 35 were less likely to know and men over 50 were more likely to know), and education (post college grads were more aware).

In 2007, the only significant differences in awareness of living in a watershed were by education level and among residents of Mission Bay (at 16%).

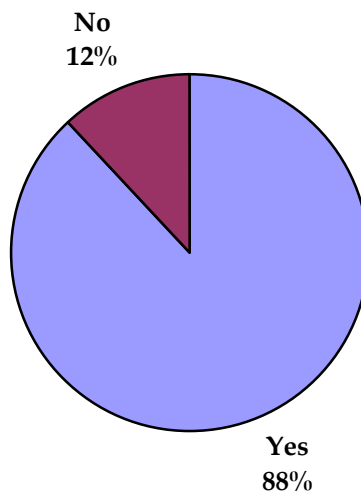
Table 4: Do You Live in a Watershed?

	2007 Survey	2008 Survey
	% Yes	% Yes
Men	10	11
Women	7	5
18-34	8	4
35-49	9	9
50-64	9	13
65+	10	10
Men 18-49	9	7
Men 50+	11	19
Women 18-49	7	5
Women 50+	8	7
San Diego Bay watershed	6	8
San Diego River watershed	9	7
Mission Bay watershed	16	11
Tijuana River watershed	0	8
San Dieguito River watershed	10	10
Penasquitos River watershed	11	8
Less than college	7	8
Some college	7	16
College grad	10	17
Post college	13	23
White	10	12
Black	2	0
Asian	10	0
Latino	7	5
Homeowners	10	13
Renters	7	4
Single family home dwellers	11	11
Apartment/condo dwellers	5	4

2. Familiarity with Term “Storm Drain”

As shown in Figure 10, 88% said they had heard the term “storm drain” before the survey call. This figure is down slightly from 2007, where 91% said they had heard the term.

Figure 10: Have You Heard the Term “Storm Drain” Before this Call?



Although the majority of people had heard the term before the call, Table 5 shows that there are significant differences across groups in familiarity with storm drains.

- Men (91%) were more familiar with the term than were women (85%)
- Ninety-two percent of people who heard the “Think Blue” slogan were familiar with the term compared to 85% of people who had not heard it
- Among those under 35, only 79% were familiar with it and 21% were not
- In the Tijuana River watershed, only 81% were familiar with it (19% were not); this is an increase in knowledge from 2007 where 28% were unfamiliar
- In the San Dieguito River watershed, 92% were familiar with the term; this is an increase from 2007 where only 75% were familiar with it and 25% were not
- Among those with no college, only 77% were familiar with it and 23% were not; those with any amount of college were significantly more likely to be familiar with the term
- Among Latinos, 21% were not familiar with this term; we also see that 42% of Asians were not familiar with it

- As in 2007, more single family home dwellers (92%) knew the term compared to 80% of apartment and condo dwellers.

Table 5: Before This Call, Were You Familiar with the Term “Storm Drain?”

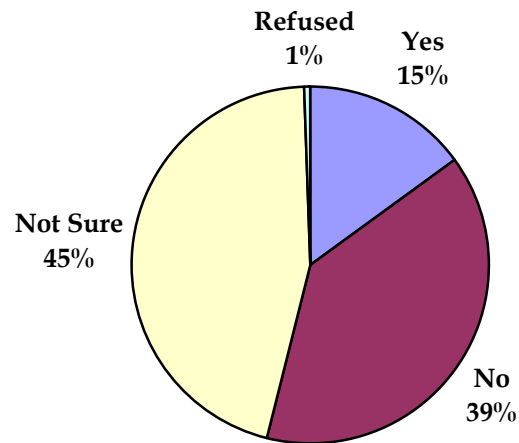
	<u>% Yes</u>	<u>% No</u>
Men	91	9
Women	85	15
18-34	79	21
35-49	92	8
50-64	94	6
65+	94	6
Men 18-49	89	11
Men 50+	95	5
Women 18-49	81	19
Women 50+	95	5
San Diego Bay watershed	88	12
San Diego River watershed	94	6
Mission Bay watershed	91	8
Tijuana River watershed	81	19
San Dieguito River watershed	92	8
Penasquitos River watershed	91	9
Less than college	77	23
Some college	93	7
College grad	92	8
Post college	90	10
White	95	5
Black	91	9
Asian	58	42
Latino	79	21
Homeowners	92	8
Renters	80	20
Single family home dwellers	92	9
Apartment/condo dwellers	87	13

3. Is Storm Water Treated?

We asked residents if water in storm drains in San Diego goes “to a sewage treatment plant before it is released, or [if] it is released into creeks or the ocean

without treatment.” Just over one-third (39%) knew that the water was not treated. This is significantly lower than the 2007 figure in which nearly half (46%), of respondents knew. However, the percentage that believed the water was treated was 15% (compared to 17% in 2007). In 2008, a greater percentage of people reported that they were unsure (45%) about whether or not the water was treated.

Figure 11: Is Storm Water Treated or Not?



There were significant variations in knowledge on this subject. As shown in Table 6, we see sizable differences by the following:

- Gender, with men (46% say storm water is not treated) better informed than women (32%)
- Age, with those under 35 (23%) more likely believe it is treated than older residents (about 12%); in 2007, those 65 and over were significantly less informed than middle aged residents. This difference was not evident in 2008, and only 15% believed that storm water was treated compared to 20% in 2007
- Watershed, with those in the Mission Bay watershed (53%) far more informed than the others, followed by residents of the San Diego River (44%) and Penasquitos (46%) watersheds
- Education, with awareness rising from 23% of those with no college to 58% of those with a post-college degree

- Race/ethnicity, with whites (53%) more likely to know that storm water is untreated compared to African Americans (26%), Asians (14%), or Latinos (25%).

Table 6: Is Storm Water Treated?

	<u>% Treated/ Not Sure</u>	<u>% Not Treated</u>
Men	53	46
Women	68	32
18-34	79	21
35-49	48	52
50-64	48	51
65+	57	43
Men 18-49	59	41
Men 50+	41	58
Women 18-49	70	30
Women 50+	61	38
San Diego Bay watershed	60	39
San Diego River watershed	55	44
Mission Bay watershed	47	53
Tijuana River watershed	75	24
San Dieguito River watershed	61	38
Penasquitos River watershed	54	36
Less than college	67	23
Some college	63	37
College grad	53	47
Post college	42	58
White	47	53
Black	74	26
Asian	86	14
Latino	75	25
Homeowners	55	44
Renters	72	28
Single family home dwellers	54	45
Apartment/condo dwellers	72	28

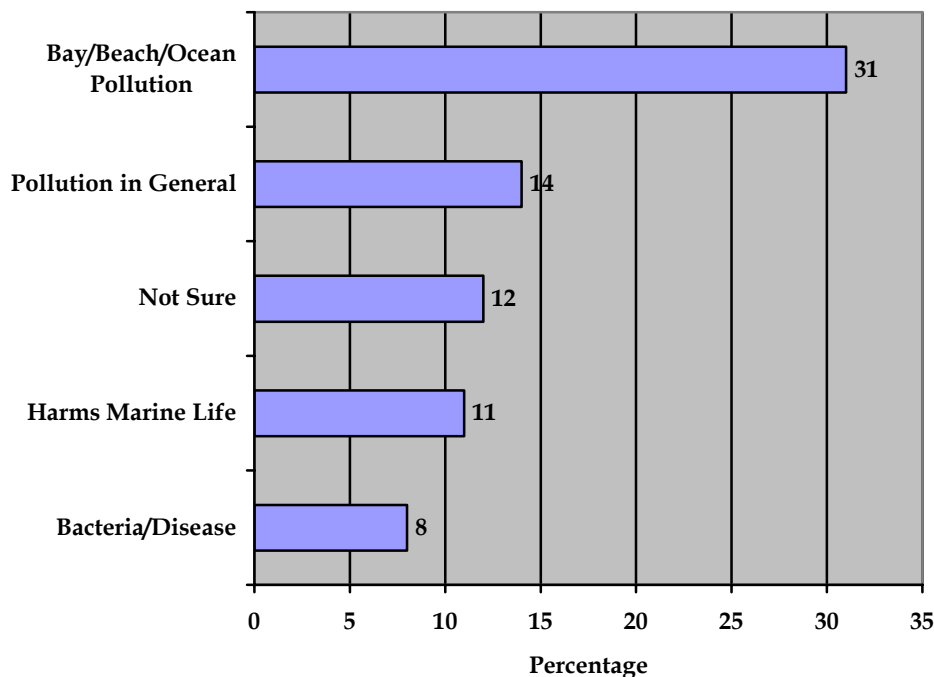
In addition, among those who said that in 2008 they had heard about the steps the city was taking to prevent storm water pollution, nearly half (48%) knew that storm water was not treated, compared to 35% who had not heard anything. Similarly,

46% of those who said they had heard about the Think Blue campaign knew that storm water was not treated compared to 34% who had not heard about Think Blue. These figures are similar to those reported in 2007, and suggest that the Think Blue campaign continues to be successful at transmitting information to residents.

4. Awareness of Problems Caused by Pollution in Storm Drains

We asked residents to report what they believed was the main problem caused by polluted water entering storm drains. Open-ended responses were coded into categories. As shown in Figure 12 below, 31% of residents made specific mention of bay, beach, or ocean pollution. Another 11% mentioned some impact on marine life, and 3% (not shown) mentioned some harm to swimmers in the ocean. So in total 45% made some reference to the impact of storm water pollution on the ocean.

Figure 12: What is the Main Problem Caused by Polluted Water Entering Storm Drains?



Those who mentioned that polluted water in storm drains causes bay, beach, or ocean pollution were:

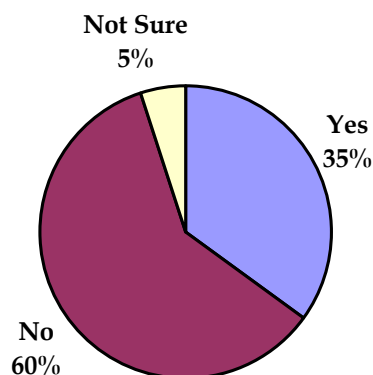
- Single family home dwellers (35%)

- People who know that storm water is not treated (41%)
- People who are aware that the city is taking steps to reduce storm water pollution (37%)
- People who saw the television ad with the yellow ducks being washed down the street (35%)
- Whites (39%) and Non-Latinos (34%); This problem was reported by 44% of white men and only 18% of Latino men.
- Men over 50 (43%); Residents between the ages of 18 and 34 were the least likely to mention this as a problem
- Residents of the Tijuana River (20%) were least likely to mention this problem.

5. Familiarity with San Diego City Actions to Prevent Storm Water Pollution

Thirty-five percent of residents said that in the 2008 survey that they saw or heard something about steps the city of San Diego was taking to prevent pollution of storm water. This is comparable to the 2007 survey results in which 36% reported hearing this information.

Figure 13: In 2007, Did You See or Hear Anything About Steps the City is Taking to Prevent Storm Water Pollution?



We see variations in awareness of steps the city is taking as follows:

- Only 22% of those under age 35 are aware of such steps, compared to about 43% of older residents
- White men (47%) were more familiar with these steps than women (31%) or Latino men (29%)
- Among those familiar with the Think Blue slogan, 42% have heard of steps the city is taking, compared to 30% of those not familiar with the slogan
- Among single family home dwellers, 37% are familiar with the city's efforts, compared to 30% of apartment/condo dwellers
- Non-Latino residents (38%) are more aware than Latinos (28%)
- Forty-five percent (45%) of college graduates compared to those without college degrees (33%) or with post graduate degrees (33%).

Overall, these variations mirror those obtained in the 2007 survey.

H. Familiarity with Specific “Think Blue” Messages

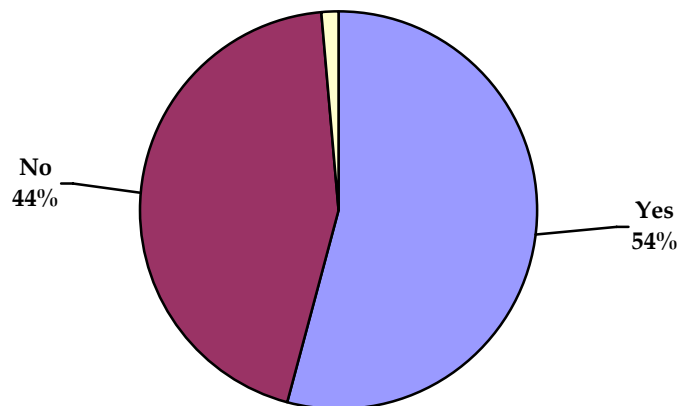
The next set of questions revisited the “Think Blue” program and asked residents about their familiarity with a variety of media efforts. In addition, we also asked residents to report their response to a series of existing and potential “Think Blue” taglines.

1. Familiarity with the “Yellow Ducks” Commercial

We asked residents to report whether they recalled seeing television commercials on storm water pollution prevention that featured yellow ducks being washed down the storm drains.

Fifty-four percent of residents said that they recalled this commercial.

Figure 14: Do You Recall Seeing Any Television Commercials With Yellow Ducks?



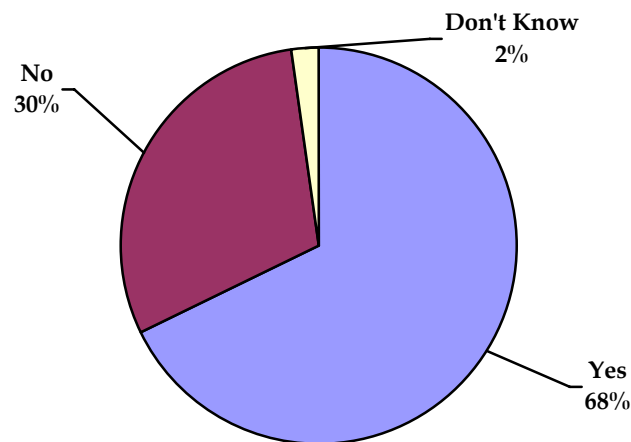
The groups most likely to recall seeing the “yellow ducks” commercial are:

- Latinos (60%) compared to Non-Latinos (51%)
- Residents between the ages of 35 and 64 (about 62%) compared to those under 35 (47%) and seniors (49%)
- Residents of the Tijuana River watershed (65%).

2. Familiarity with “Keep Mission Bay Clean and Safe”

We asked residents to report whether they recalled seeing or hearing any messages that said “Keep Mission Bay Clean and Safe.” Sixty-one percent of residents recalled hearing this message.

Figure 15: Do You Recall Seeing Or Hearing “Keep Mission Bay Clean and Safe?”



The groups most likely to recall seeing or hearing the “Mission Bay” messages are:

- Women (65%) more than men (57%); in particular, white women (67%) more than white men (53%)
- People who were familiar with the “Think Blue” slogan (68%) compared to those who weren’t (55%)
- Residents who believe that storm water is treated (76%)
- Asians (77%) more often than whites (59%).

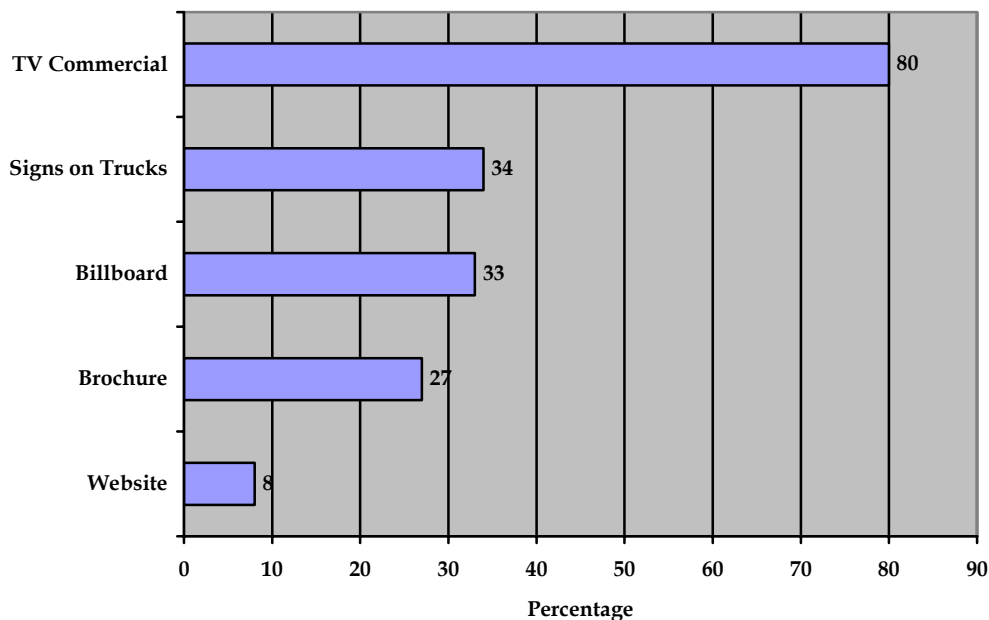
There were no differences across watershed in the proportion of people who recalled hearing the message.

3. Familiarity With Specific Think Blue Elements

Prior to completing the next set of survey items, residents were provided with a brief description of the “Think Blue” program. Following this description, residents were asked whether they had heard about the “Think Blue” program before the call. Residents who answered that they had heard of the program (55%) were asked whether or not they had seen each of five specific program elements.

As seen in Figure 16 below, 80% of residents who had heard of “Think Blue” saw a TV commercial, and about one-third saw brochures, signs on trucks, and billboards. Importantly, only 8% had seen the Think Blue website.

Figure 16: Have You Seen Any Of The Following From The Think Blue program?



There was not much variation among those who saw TV commercials, billboards, brochures, or the website

The groups most likely to have seen a TV commercial were:

- Residents of the Tijuana River watershed (92%)

- White renters (89%) compared to white homeowners (77%).

The groups most likely to have seen a billboard were:

- Residents under 50 (38%) compared to seniors (24%)
- Latino women (49%) compared to white men (31%) and white women (32%)
- Latino renters (50%) compared to white homeowners (29%).

The groups most likely to have seen a brochure were:

- Single family home dwellers (31%) compared to residents of condos or townhomes (16%)
- Residents over 50 (35%) compared to younger residents (24%).

The groups most likely to have the website were:

- Latinos (14%) more than non-Latinos (5%); in particular, Latino men (18%) compared to white men (6%) and white women (6%).

The largest amount of variation across groups was in residents who reported seeing signs on the sides of trucks.

The groups most likely to have seen signs on the sides of trucks were:

- Those who believed storm water was treated (49%) compared to those who knew it was not treated (31%)
- Latinos (47%) compared to non-Latinos (29%)
- Latinos without college degrees (51%) compared to whites with degrees (20%)
- Residents under 35 (41%) and over 65 (42%) compared to those between 35 and 64 (29%)
- Least likely to be white women (21%) compared to 48% of Latino women, 45% of Latino men, and 34% of white women

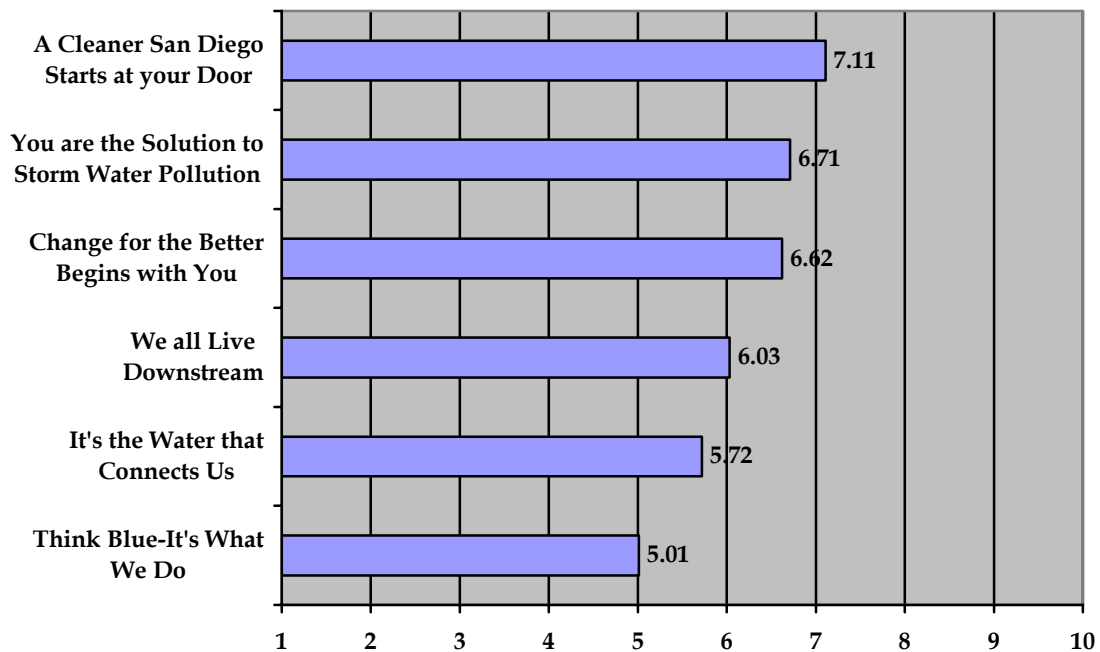
- Twice as likely to be residents of the Tijuana River watershed (52%) compared to 21 - 28% of residents from other watersheds.

I. Persuasiveness of Think Blue Taglines

The next set of items asked residents to rate the persuasiveness of six existing or potential slogans for the Think Blue program. Items were rated in terms of the likelihood that they would persuade the respondent to keep pollution out of storm drains. Each item was rate on a scale from 1 (not at all persuasive) to 10 (very persuasive). The order in which the items were presented was rotated to adjust for potential order effects.

Figure 17 shows the mean score of each of the six items. Overall, all of the messages were viewed as somewhat persuasive as the mean scores for all six messages were above the midpoint. Mean scores fell between 5 and 7 on a 10-point scale.

Figure 17: Persuasiveness of Think Blue Slogans for Keeping Pollution out of Storm Drains.



Across all messages, residents with college degrees rated the messages as less persuasive than residents without college degrees. White men also rated the messages lower in persuasiveness. There were no differences in the perceived persuasiveness of the messages across age groups.

1. A Cleaner San Diego Starts at Your Door (Mean = 7.11)

The groups who rated this rated this message as most persuasive were:

- Latinos (8.0) compared to Non-Latinos (6.5); and African Americans (7.8) compared to whites (6.6)
- Residents of the Tijuana River (8.0) and San Diego Bay (7.2) watersheds.

Fifty-eight percent of women rated this message as an 8, 9, or 10 (high persuasiveness) compared to 44% of men; 15% of men rated the message as a 1, 2, or 3 (low persuasiveness) compared to just 9% of women.

2. You Are the Solution to Storm Water Pollution (Mean = 6.71)

The groups who rated this rated this message as most persuasive were:

- Latinos (7.4) compared to Non-Latinos (6.3); and African Americans (7.5) compared to whites (6.4).

Fifty-three percent of residents who rated this message as an 8, 9, or 10 were familiar with the Think Blue slogan compared to 40% who were not familiar with it. Fifty-two percent of women rated the message as an 8, 9, or 10 compared to just 39% of men.

3. A Change for the Better Begins With You - Think Blue (Mean = 6.62)

The groups who rated this rated this message as most persuasive were:

- Latinos (7.6) compared to Non-Latinos (5.9); and African Americans (7.5) and Asians (7.3) compared to whites (6.0)
- Residents of the Tijuana River (7.6) and San Diego Bay (6.7) watersheds.

Fifty-five percent of women rated this as an 8, 9, or 10 compared to just 37% of men; 21% of men rated this item as a 1, 2, or 3 compared to 13% of women. Over half (51%) of the residents who rated this message 8 - 10 were familiar with Think Blue.

4. Because We All Live Downstream (Mean = 6.03)

There was no significant variation in response to this message.

Forty-two percent of people who rated this message as an 8, 9, or 10 (high persuasiveness) had heard the Think Blue slogan prior to the call.

5. It's the Water that Connects Us (Mean = 5.72)

The groups who rated this rated this message as most persuasive were:

- Latinos (6.5) compared to non-Latinos (5.0), and African Americans (5.94) more than whites (5.1)
- Residents of the Tijuana River watershed (6.5).

There was a significant difference in the way this message was perceived by residents in different home types. Specifically, 28% of single family home dwellers rated this message as a 1, 2, or 3 (low persuasiveness) compared to 19% of apartment/condo dwellers. Thirty-eight percent of apartment/condo dwellers rated this message as an 8, 9, or 10.

6. Think Blue - It's What We Do (Mean = 5.01)

The groups who rated this rated this message as most persuasive were:

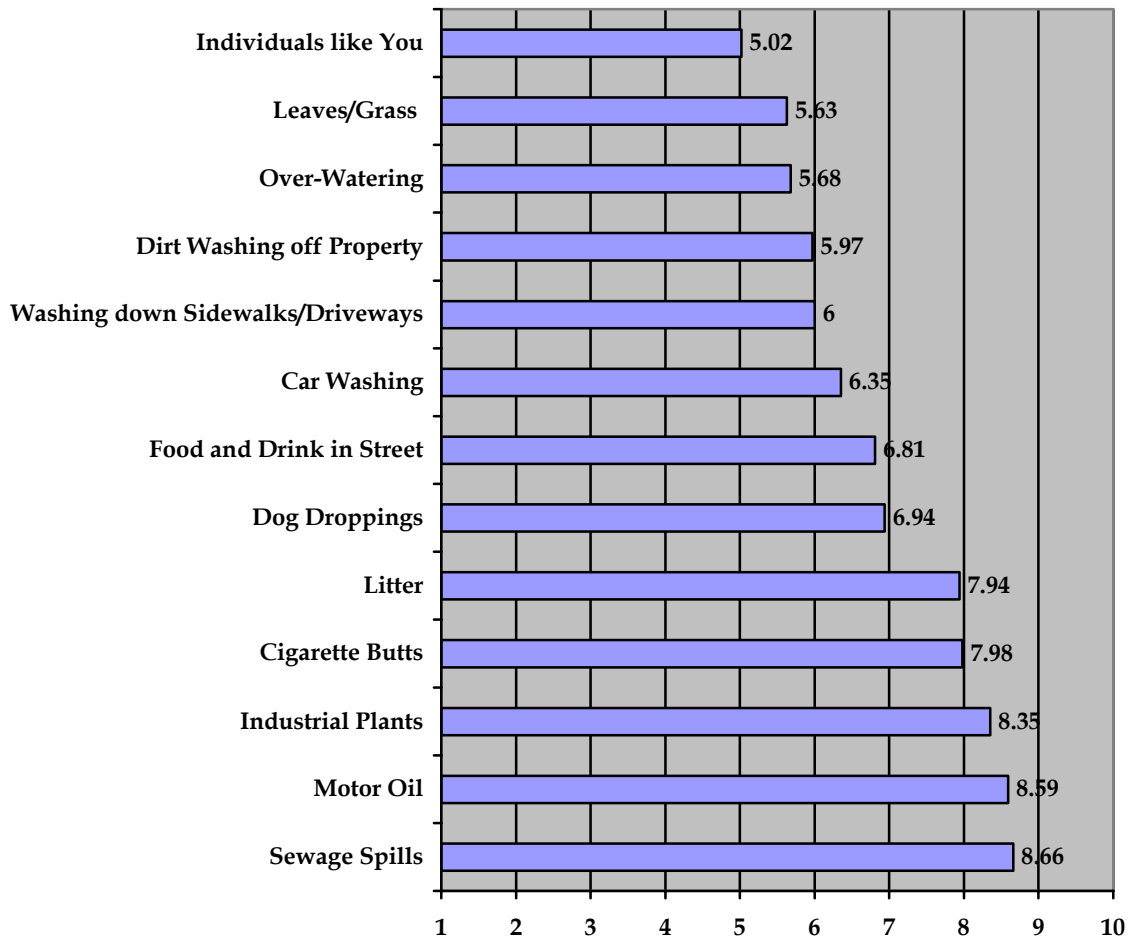
- Latinos (5.8) compared to non-Latinos (4.4), and African Americans (5.9) and Asians (5.7) more than whites (4.5).

J. Perceived Sources of Pollution

The next set of questions was aimed at identifying what items residents perceived as being a source of pollution in storm drains in San Diego. A total of 13 items were rated on a scale from 1 (not a serious source of pollution) to 10 (a very serious source of pollution).

As seen in Figure 18, sewage spills (Mean = 8.66), motor oil (8.59), and industrial plants (8.35) were perceived as being the most serious sources of pollution in storm drains whereas over-watering of lawns (Mean = 5.68), leaves or grass clippings (5.63), and “individuals like you” (5.02) were viewed as the least serious.

Figure 18: Seriousness of Storm Drain Pollutants



There were very few differences by group as a function of the pollutant. However, a few clear patterns emerged from the data:

- **Women.** Across all 13 items, women were significantly more likely than men to rate these sources of pollution as a very serious problem
- **Yellow Ducks.** Residents who saw the TV commercial with the yellow ducks going down the street into the storm drain rated litter, sewage spills, and grass clippings as significantly more serious than did those who did not see the commercial
- **Familiarity with Think Blue.** With the exception of “grass clippings” and “individuals like you,” residents who had heard of Think Blue rated each of the pollutants as more serious than those who had not heard of Think Blue
- **Men over 50.** Men over 50 rated most pollutants as less serious than men and women in other age groups
- **Tijuana River Watershed.** Dog droppings, grass clippings, washing sidewalks/driveways, and dirt washing into street were rated of highest seriousness by residents of the Tijuana River watershed
- **Latinos.** With the exception of cigarette butts, Latinos rated the pollutants as more serious than non-Latinos.

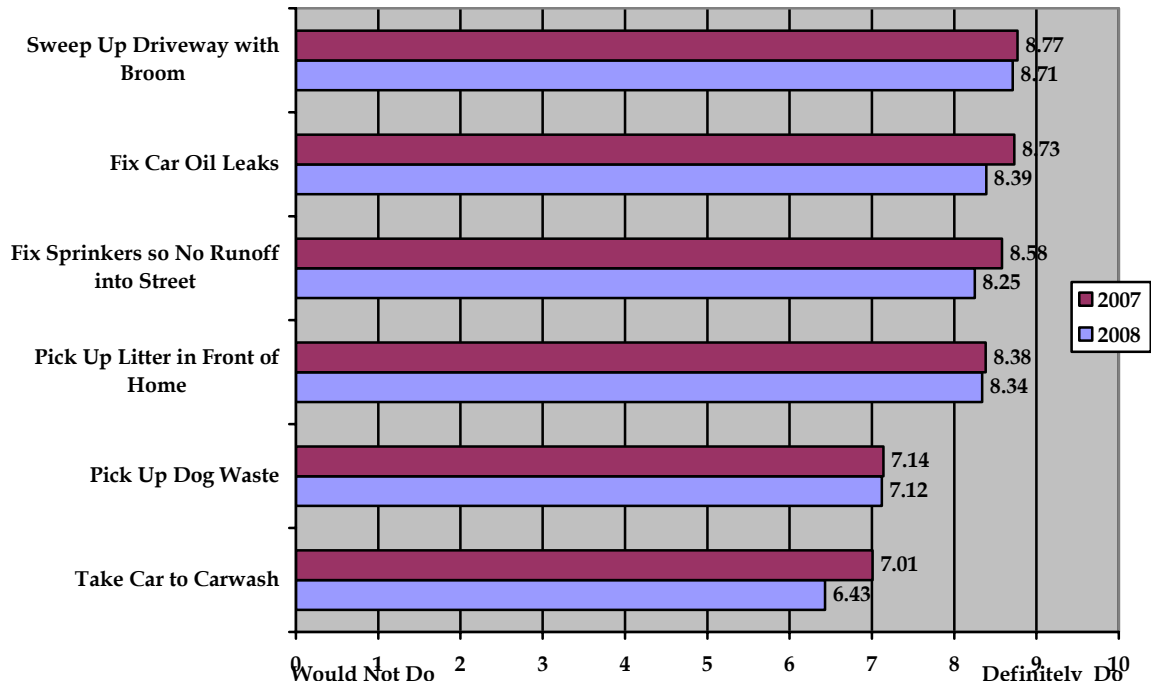
K. Actions to Reduce Storm Water Pollution

After asking about the seriousness of a variety of pollutants, we presented a series of questions designed to assess willingness among San Diego residents to take 6 specific actions to prevent storm water pollution. We asked them to rate their willingness on a scale of 1 to 10, where 1 meant it was something they would not do, and 10 meant it was something they definitely would do to help prevent pollution. (Note that some items were asked only of single family home dwellers and one was asked only of home vehicle washers).

The mean score results are displayed in Figure 19.

Overall, we see high levels of potential cooperation for most of the actions described in the poll. Indeed the ratings across all 6 behaviors are a full point or higher above the scale's mid-point. As in 2007, we found a strong willingness among homeowners to "sweep up your driveway or sidewalk with a broom instead of hosing it down with water." Fifty-eight percent rated this as a 10. Although the 2008 survey listed fewer actions than the 2007 survey, the behaviors were ranked similarly across the two years. At the bottom of the list, and almost a full point lower, is going to a car wash.

Figure 19: Willingness to Take Actions to Prevent Pollution (Mean Scores on 1-10 Scale)



1. Sweep up your driveway or sidewalk with a broom instead of hosing it down with water

Of the single family home dwellers asked this question, 58% rated their willingness to do this with a 10, especially:

- Women (67%) compared to men (49%)
- Residents in the Tijuana River watershed (68%) and Mission Bay (68%) watershed compared to San Dieguito Bay or Penasquitos River.

2. Fix your car immediately if you notice any oil stains on your driveway or under your car

Fifty-three percent rated their response to this item as a 10.

- Women (61%) compared to men (46%) and especially men under 50 (43%).

- Blacks (60%) compared to whites (48%) and Asians (42%) and Latinos (55%) compared to white males (39%).

3. Fix your sprinklers so they don't wash soil or manure onto the street

Of the single family home dwellers asked this question, 52% rated their response as a 10, and especially:

- Women (62%) compared to men (43%);
- Residents between 35 and 64 (58%) compared to those under 35 (43%).

4. Pick up litter and trash that is in the gutter in front of your home

Fifty-five percent rated their response as a 10, and especially:

- Women (61%) compared to men (49%)
- Those who had heard about Think Blue (60%) compared to those who did not (51%)
- Single family home dwellers (61%) compared to apartment/condo dwellers (40%)
- Those over age 34 (71%) compared to those younger (46%)
- Latino homeowners (65%) compared to Latino renters (49%) or white renters (50%)
- Latinos (63%) and whites (64%) with college degrees compared to those without (29%).

5. Pick up dog waste in front of your home and put it in the trash, even if it is not from your dog

Overall, 45% rated this item as a 10, especially:

- Single family home dwellers (54%) compared to duplex/townhome dwellers (35%) and apartment/condo dwellers (29%)

- Those who have heard of city programs to prevent storm water pollution (51%)
- Whites (49%) compared to African Americans (28%) and Asians (32%)
- Those over 34 (75%) compared to those under (33%)
- White women (56%) compared to white men (42%)
- Latino (53%) and white (58%) homeowners compared to white renters (28%).

6. Take your car to a carwash instead of doing it yourself

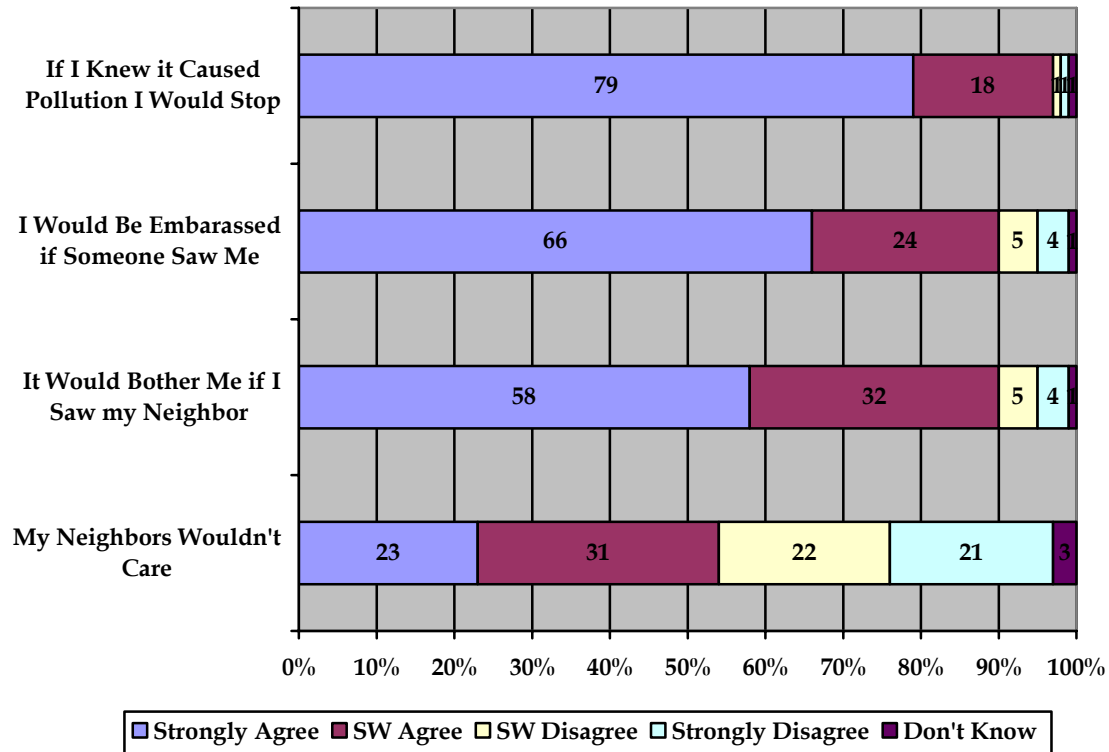
Of those who said they wash their car at home, only 26% rated their willingness to take the car to a carwash as a 10. This included in particular:

- People who did not hear about Think Blue (30%) compared to those who did (20%)
- Latinos (36%) compared to non-Latinos (21%)
- Women with no college degree (37%) compared to men with college degrees (37%)
- Residents over 35 (75%)
- Residents of the Tijuana River watershed (34%) and Mission Bay watershed (44%) compared to residents of the San Dieguito watershed
- Latino renters (46%) compared to white homeowners (19%).

K. Personal Norms

We asked residents to respond to four questions that assessed the extent to which they felt a personal obligation to prevent storm water pollution. Overall, residents felt a strong personal obligation to do the right thing, but did not feel strongly that others felt a similar obligation.

Figure 20: Norms



1. It would really bother me if I saw a neighbor doing something that causes pollution of storm drain water.

Ninety percent of residents agreed somewhat or strongly with this statement. This was particularly true for women over 50 (92%), men under 50 (93%), and Latinos with a college degree (98%). Men over 50 were most likely to disagree with this statement (12%).

2. I would be really embarrassed if someone saw me doing something that causes pollution of storm drain water.

Ninety-one percent of residents agreed somewhat or strongly with this statement. This was particularly true for women (93%), apartment/condominium dwellers (95%), Latino women (96%), Latino renters (100%), and Latinos with a college degree (100%). Men without college degrees (11%) and men under 50 (10%), and white men (9%) were most likely to disagree with this statement.

3. If I knew that something I was doing causes pollution of storm drain water, I would stop doing it immediately if I could.

Fully 98% of residents agreed with this statement. This was particularly true of townhome (100%) and apartment dwellers (99%), residents under 50 (99%), and Latino renters (100%).

4. Most of my neighbors probably wouldn't care if something they normally do was causing pollution of storm drain water.

This item brought the greatest amount of variability. Just over half of all residents (54%) believed that their neighborhoods wouldn't care if something they normally do was causing pollution of storm drain water.

The highest proportion of people agreeing with this statement included:

- Those who have not heard about city programs to prevent pollution (59%)
- Those not sure what to do to prevent storm water pollution (61%)
- Latinos (64%) and Asians (62%)
- Residents under 35 (63%)
- Residents of the Tijuana River watershed (69%).

The highest proportion of people disagreeing with this statement included:

- Non-Latinos (50%)
- Those with college degrees (50%)

- Residents between 35 and 64 (49%) compared to those under 35 (36%)
- Those in watersheds besides San Diego Bay and Tijuana River.

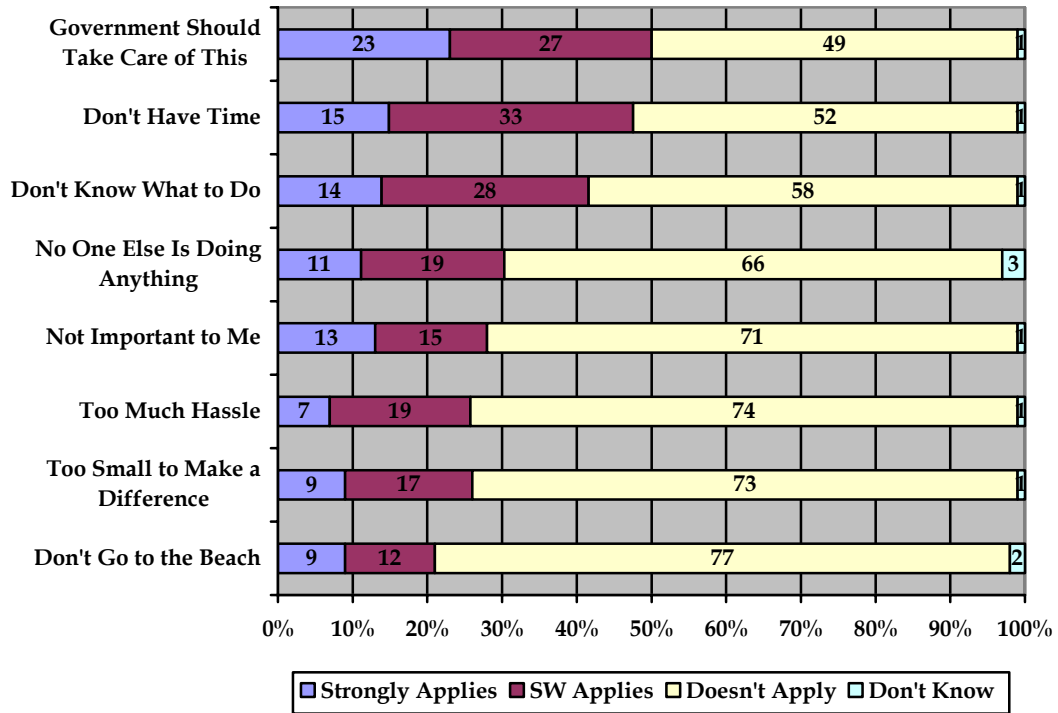
L. Barriers to Action

We asked residents to respond to a set of items designed to explore barriers to taking action to stop storm water pollution. Specifically, we asked residents whether each of 8 possible reasons to not do more to help stop storm water pollution applies to them, or not.

As shown in Figure 21, the most commonly given reasons are that it is something government should take care of (50%), lack of time (48%), and don't know what to do (41%). Lack of time was also rated at the top in the 2007 survey (44%). Note that the item about government responsibility was not asked in the 2007 survey.

A smaller proportion (31%) said that they did not believe others are doing anything, and 28% said that stopping storm water pollution is simply not that important to them. Twenty-six percent cited too much hassle or feeling what they do is too small to make a difference and 21% said pollution did not affect them because they don't go to the beach.

Figure 21: Percent Saying Each Reason Applies to Them



Primary Barriers

1. Government should take care of this (50%)

- Age: This applies more to residents under 35 (67%)
- Location: This applies to 57% in the Tijuana River watershed and 56% in the San Diego Bay watershed
- Race/Ethnicity: This applies to more Latinos (59%) and African Americans (71%)
- Home Type: This applies more to single family home dwellers (64%).

2. I would like to do more but I just don't have time (44%)

- Age: This applies more to younger residents compared to 50+ residents
- Area: This applies to 59% in the Tijuana River watershed
- Education: This applies more to those with lower education levels – about 58% of those with no college degree compared to about 45% of those with a college degree
- Race/Ethnicity: This applies to 76% of Asians and 61% of African Americans compared to just 40% of whites
- Gender: This applies more to men (52%) than women (43%)
- Knowledge: This applies more to people who never heard of Think Blue (53%).

3. I do not know that much about what to do (41%)

- Race/Ethnicity: This applies more to African Americans (54%) and Asians (54%) than to whites (37%)

- Own/Rent: This applies more to Latino renters (51%) than to Latino homeowners (34)
- Gender: This applies more to women under 50 (48%).

Secondary Barriers

4. **No one else I know is doing anything (31%)**

- Education: This applies least to women with college degrees (18%)
- Age: This applies most to residents under 35 (39%)
- Location: Tijuana River watershed residents (43%) are more likely than others to say this applies to them
- Home Type: Apartment/condo dwellers (38%) are more likely to say this applies to them than single family home dwellers (27%); Latino homeowner (42%) are more likely than white homeowners (23%) to say this applies.
- Race/Ethnicity: This applies more to Latinos (38%) and Asians (49%).

5. **It is not something that is honestly that important to me (28%)**

City programs: People not aware of city programs to address storm water pollution are more likely (32%) to say this is not important to them compared to those aware of the programs (20%).

- Not sure what to do: This is also more likely to be applicable to those who say they don't know what to do to prevent pollution (39%) compared to 19% of others.
- Gender/Education: Men with no college degree are more likely (34%) than others to say this is not important to them.
- Watershed: Tijuana River watershed residents (34%) are most likely to say this is not important to them.

6. It's too much hassle to do a lot of this (26%)

- Gender: This applies to men (30%) more than women (22%); it applies least to women over 50 (16%)
- Age: This applies much more to seniors (45%) than to others, and especially to older men
- Race/Ethnicity: This applies to 37% of African Americans and 45% of Asians compared to 22% of whites.
- Location: This applies most to residents of the Tijuana River (29%) and the San Diego Bay (25%) watershed compared to residents of Mission Bay (16%).

7. What I do is too small to make a difference (26%)

- Age: This applies much more to seniors (28%) and those under 35 (31%) compared to others
- Location: This is least likely to apply to residents of the San Dieguito watershed (11%)
- Home Ownership: This is least likely to apply to white renters (8%) compared to others (about 30%)
- Education: This applies much more to those with no college (30%) than to college graduates (19%)
- Race/Ethnicity: This applies to 49% of Asians compared to 20% of whites and 27% of African Americans.

8. I don't go to the beach so the pollution does not affect me (21%)

- Home Ownership: This applies more to Latino homeowners (26%) than to white homeowners (6%)
- Race/Ethnicity: Applies more to Asians (37%) than whites (19%); Applies especially to Latino men (33%) compared to others (about 16%).

- Location: Apples most to those in the San Diego Bay watershed (25%)

M. Motivations for Environmental Concern

The following analysis was prepared by Action Research.

The final set of substantive items asked residents to rate their motivations for environmental concern based on the consequences of polluted water in storm drains for various groups. The scale is based on a psychological theory which suggests that values provide the source of concern for environmental issues and for pro-environmental behavior.

Academic research has identified three sets of values associated with environmental attitudes: egoistic, altruistic, and biospheric. Egoistic values are focused on self, and self-oriented goals (e.g., wealth, personal success). Altruistic values focus on other people (e.g. community, humanity), and biospheric values focus on the well-being of living things (e.g., plants, animals). Conceptually, each of these sets of values can lead to concern for environmental issues, and ultimately to behavior when activated.

The twelve-item scale consisted of biospheric, egoistic, and altruistic environmental motives. Each item was ranked from 1 (no concern) to 10 (a great deal of concern):

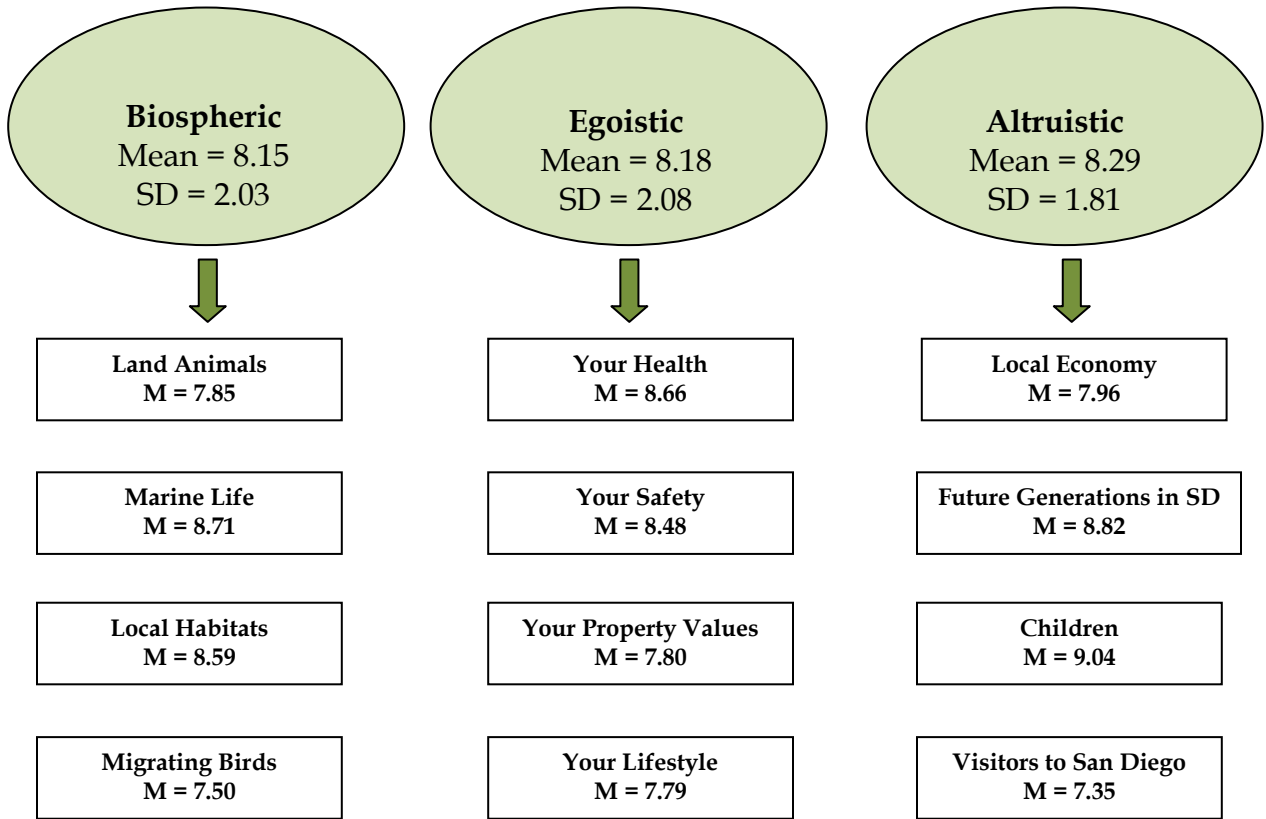
- **Biospheric** motives were: land animals, marine life, local habitats, and migrating birds.
- **Egoistic** motives were: your health, your property values, your safety, and your lifestyle.
- **Altruistic** motives were: local economy, future generations in San Diego, children, and visitors to San Diego.

Figure 22 shows the mean scores across the three value sets, as well as mean scores for concern about the individual items on the scale. Overall concern about the consequences of storm water pollution was high (Biospheric: Mean = 8.15, Egoistic: Mean = 8.18, and Altruistic: Mean = 8.29 on a 10-point scale).

When classified into one of the three primary types, the largest grouping were “biospheric” concerns (45%). Among the specific items, the strongest motivation for taking action to reduce storm water pollution were concerns about the consequences

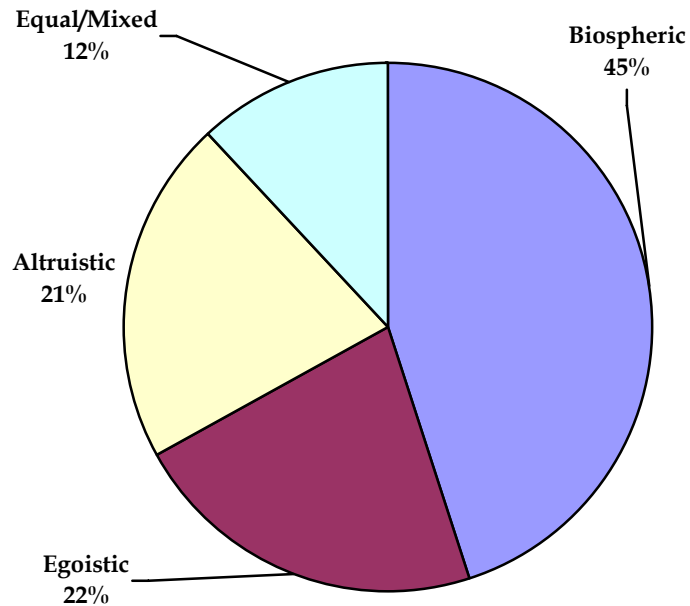
for “children” (Mean = 9.0), “future generations in San Diego” (Mean = 8.8), and “health” (Mean = 8.7). The lowest rated motivations were concerns for “visitors to San Diego” (Mean = 7.4) and “migrating birds” (Mean = 7.5)

Figure 22: Mean Motives for Environmental Concern



Residents were categorized based on their highest ranked motivations. As seen in Figure 23, most residents rated biospheric concerns highest.

Figure 23: Residents by Primary Environmental Concern



Residents highest in biospheric environmental concern were:

- Women (57%) compared to men (45%); this is particularly true of women over 50 (64% ranked biospheric concerns highest) compared to younger men (41%)
- Age 50 and over (58%) compared to younger residents (47%)
- Least likely to be Asian (30%) compared to other ethnic groups (over 40%); Sixty-nine percent (69%) of Native Americans were classified as biospheric
- More likely to have heard about Think Blue (59%) compared to those who did not (44%)
- More likely to know what a storm drain was (53%) compared to those who did not know (35%)

- More likely to know that storm water is not treated (56%).

Residents highest in egoistic environmental concern were:

- Less likely to have heard about Think Blue (20%) compared to those who did hear about it (29%)
- African American (35%) and white (24%) compared to other ethnic groups.

Residents with altruistic environmental concern were:

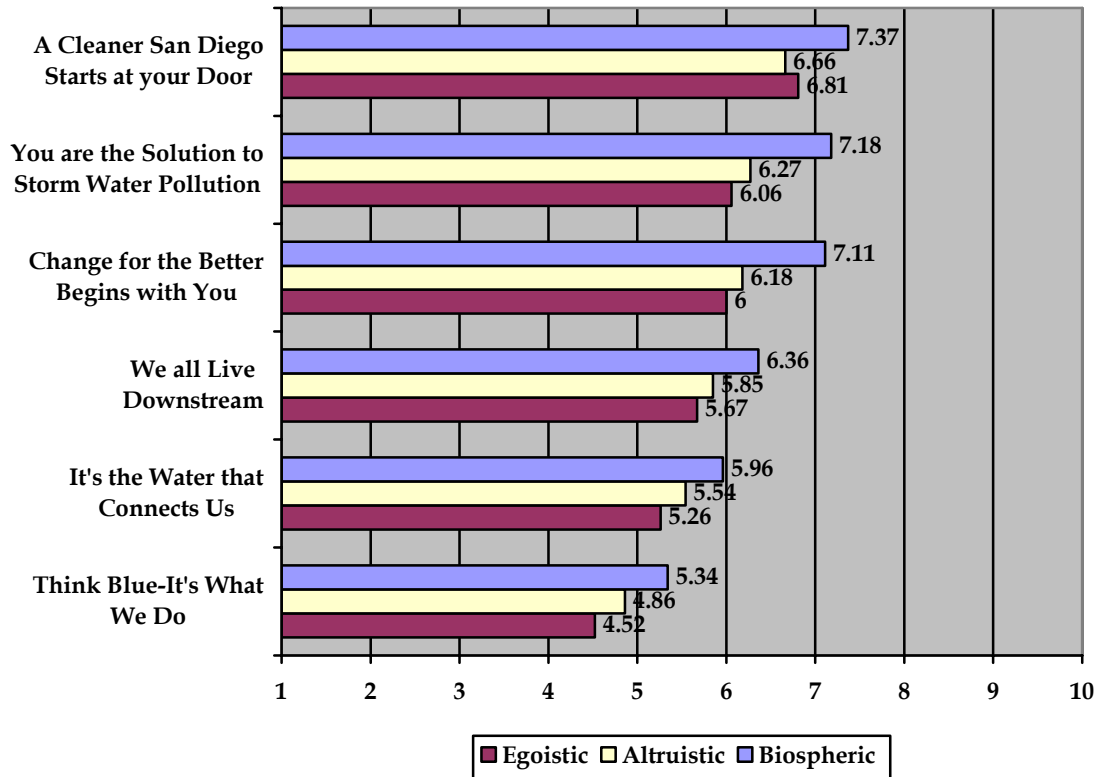
- Less likely to have heard about Think Blue (20%) compared to those who did hear about it (27%)
- Less likely to have heard the term storm drain (20%) compared to those who heard it (27%)
- Asian (52%)
- Men under 50 (32%)
- Residents who believed that storm water was treated (36%) compared to those who knew it was not treated (20%).

There were no differences in education, watershed, or home type across the three groups. In addition, Latinos were equally distributed across the groups.

Rating of “Think Blue” slogans

Residents with biospheric environmental motives consistently rated the existing and potential “Think Blue” slogans significantly higher than the other groups. Residents with egoistic environmental concerns rated the messages lowest.

Figure 24: Liking for “Think Blue” Messages by Environmental Concern



The results of these analyses can be useful in the development of new messaging, public services announcements, and other outreach activities. The analyses showed that San Diego residents can be divided into three distinct groups, each of whom has a unique value basis for their environmental concern. In particular, we found that the largest group of San Diego residents was concerned about storm water pollution because of its consequences for living things (biospheric concerns) suggesting that broad campaign strategies would be most effective when highlighting these concerns over altruistic or egoistic concerns (i.e., children or personal lifestyle).

The findings also allow us to go beyond traditional demographic profiles (e.g., gender, age, etc.) in the development of audience-specific messaging. Even within these different demographic profiles, there is considerable variation in the specific value basis for environmental concern. Based on the results of our analyses, appeals can be designed specifically to target the three unique sets of values. For example:

- We found that 64% women over 50 were high on biospheric concern. This finding tells us that for this group, messages that address the environmental consequences of storm water pollution for children and future generations (altruistic), or personal health (egoistic) would be less effective than messages that showed the effects of storm water pollution on marine life or local habitats.
- Conversely, we found that Asians (52%) were highest in altruistic motives (e.g., future generations and children). We also found that 56% of Asians in San Diego wash their car at home. Taken together, these findings suggest that Asians might be targeted with a message that links car washing behavior to the environmental consequences that will be experienced by future generations.

APPENDIX

QUESTIONNAIRE WITH AGGREGATE RESULTS

Respondent ID# _____

Gender of Respondent

1 (Male)----- 50%
2 (Female) ----- 50

Time Started _____

Time Finished _____

Total Time _____

Hello, I'm _____ from G-S-V-R, a public opinion research company. We're conducting a brief survey about issues affecting San Diego [dee-A-go]. We are not trying to sell you anything, and we are only interested in your opinions. According to the research procedure, may I speak to the adult in the house age 18 or older who had the most recent birthday? (IF RESPONDENT SAYS NO OR NOT NOW, ASK TO MAKE AN APPOINTMENT FOR LATER).

A. To start, do you live in the City of San Diego, or in some other city?

Yes San Diego (SKIP TO Q.1)-----91%
No, other city (ASK Q.B) ----- 9
(DON'T READ) DK/NA -----TERMINATE

ASK Q.B IF OTHER CITY ON Q.A (N = 69)

B. What city do you live in?

(DON'T READ)

San Diego----- 2%
Carmel Mountain Ranch----- 0
Carmel Valley ----- 0
Del Cerro ----- 0*
Del Mar Heights ----- 0*
Del Mar Mesa ----- 0*
Encanto ----- 2
Hillcrest ----- 0
Jamacha ----- 0*
La Jolla [la HOY- ah] ----- 1
Mira Mesa ----- 0*
Mission Beach ----- 0
Ocean Beach ----- 0
Otay/Otay Mesa ----- 0*
Pacific Beach ----- 0*
Point Loma----- 0*
Rancho Bernardo ----- 0*
Rancho Peñasquitos ----- 0
Sabre Springs ----- 0*
San Carlos ----- 0
San Pasqual ----- 0
San Ysidro ----- 2
Scripps Ranch ----- 0
Tierrasanta----- 1
Tijuana River Valley ----- 0
Torrey Highlands/Hills/Pines ----- 0
University City----- 0*
UTC ----- 0
Any other response----- TERMINATE
Not Sure/Refused ----- TERMINATE

*Less than 0.5%

1. Now, in the past year, have you seen or heard the slogan "Think Blue San Diego?"

	<u>YES</u>	<u>NO</u>	<u>DK/NA</u>
Think Blue-----	45%	54%	1%

IF NO OR DK ON Q1, SKIP TO Q.3.

2. Where did you see or hear this? (RECORD VERBATIM, THEN SUPERVISOR CODE) (N = 415)

(DON'T READ)

TV ad-----	52%
Radio-----	13
Billboard-----	7
Brochure-----	1
Community meeting/event-----	1
TV news-----	4
Newspaper-----	8
Internet/web site-----	0*
Side of truck-----	4
Friends/family/word of mouth-----	2
At the beach-----	2
On the street (sewers/wall/storm drains/curb-----	7
On my water bill-----	2
Other-----	3
Not Sure-----	9

May exceed 100% as multiple responses permitted

**Less than 0.5%*

3. In a few words of your own, what do you think that the slogan "Think Blue San Diego" is asking you to do? (RECORD VERBATIM, THEN SUPERVISOR CODE)

(DON'T READ)

Mention of storm drains or storm water-----	9%
Mention of water pollution-----	18
Mention of clean beaches or ocean-----	17
Mention of creeks-----	0*
Other mention of protecting the environment-----	2
Clean air/prevent air pollution-----	5
Ask people to recycle-----	3
Clean up environment/be environmentally aware-----	17
Conserve water-----	12
Other-----	6
Nothing-----	0*
Not sure-----	22

May exceed 100% as multiple responses permitted

**Less than 0.5%*

4. Now, other than global warming, what would you say is the most important environmental problem facing San Diego? (RECORD VERBATIM, THEN SUPERVISOR CODE)

(DON'T READ)

Mention of bay/beach/ocean pollution -----	6%
Mention of creek/stream pollution-----	1
Mention of other water pollution -----	11
Specific mention of drinking water -----	1
Need to conserve water/drought/not enough water -----	16
Smog/air pollution -----	11
Toxic chemicals/toxic waste -----	0*
Mention of endangered species -----	1
Mention of climate change/global warming -----	1
Loss of open space/parkland/wilderness-----	0*
Mention of wetlands -----	0
Need for clean energy/reduce dependence of fossil fuels/foreign oil -----	1
Nuclear energy-----	0
Conserve energy -----	1
Mention of fires/wildfires-----	2
Growth/too many people -----	4
Runoff from streets and gutters-----	0*
Pollution in general-----	8
Trash/waste-----	8
Traffic/too many cars -----	5
Crime -----	1
Economy/prices too high -----	4
Mention of sewers/sewage-----	1
Erosion/landslides-----	1
Negative comments on government/politicians-----	3
Other-----	8
None -----	3
Not sure-----	8

May exceed 100% as multiple responses permitted

*Less than 0.5%

5. Now I'd like to read you a list of four issues the city of San Diego is dealing with. After I read each one, please tell me whether you feel it is very important, somewhat important, not very important, or not at all important. (ROTATE)

	VERY IMP	SW IMP	NOT VERY	NOT AT ALL	DK/ NA
[] a. Broken or deteriorating city water and sewer pipes -----	81%	16%	2%	1%	1%
[] b. The quality of public schools -----	82	13	3	1	2
[] c. Pollution of San Diego's ocean, bays, and beaches -----	76	20	3	1	0
[] d. Traffic congestion -----	56	36	6	2	1
[] e. Polluted water entering storm drains in San Diego-----	77	20	2	1	0

6. On a scale of 1 to 10, how would you rate the job the city of San Diego is doing in (READ)? Use a 1 if you think it is doing a poor job, a 10 if you think it is doing an excellent job, or any number in between. (ROTATE)

	POOR										EXC		DK	MEAN
	1	2	3	4	5	6	7	8	9	10			99	
[] a. Keeping polluted water out of storm drains	8%	5%	7%	9%	21%	12%	14%	10%	2%	3%	9%		5.28	
[] b. Spending tax dollars efficiently	20	8	11	9	20	9	11	6	2	1	6		4.23	
[] c. Preventing pollution of San Diego's ocean, bays, and beaches	8	4	7	9	22	13	16	11	2	3	5		5.36	

7. Do you live in a single family home, a duplex or triplex, a townhouse, or an apartment or condominium?

Single family	60%
Duplex/triplex	3
Townhouse	7
Apartment/Condo	29
(DON'T READ) Other	2
(DON'T READ) DK/NA	0

8. Last year, that is in 2007, did (READ):

	YES	NO	NOT APPL	DK/NA
a. You ever wash your vehicle at home?	45%	53%	2%	0%
b. You have a dog at home?	35	65	0	0
c. You have yard waste or trash from your home or apartment's garbage bins blow into the street?	13	85	0	1
IF SINGLE FAMILY ON Q.7 ASK: (N = 477)				
d. You or your gardener use pesticides or weed-killers in your yard or garden?	31	65	1	3
e. You do any construction or major landscaping projects at your home?	24	75	1	0
f. You hose down the driveway or sidewalk in front of your home	28	71	1	1

9. How often do you see each of the following in your neighborhood? Use a scale of 1 to 10, where 1 means you never see it, and 10 means you frequently see it, or any number in between. (ROTATE)

	NEVER										FREQUENTLY		DK	MEAN
	1	2	3	4	5	6	7	8	9	10			99	
[] a. People washing their cars on the driveway or in the street	21%	19%	12%	8%	15%	5%	6%	7%	2%	6%	0%		3.98	
[] b. Dog waste being left on or near the sidewalk	36	15	10	5	8	5	6	5	2	8	0		3.67	
[] c. People washing or blowing yard waste or litter from their sidewalk or driveway into the street	38	14	12	7	8	5	3	5	2	6	0		3.37	
[] d. People using pesticides and weed-killers on their lawns or gardens	47	12	9	3	7	3	3	4	1	4	8		2.76	
[] e. Soil or dirt being washed into the street	42	16	10	5	8	4	5	4	1	6	1		3.17	
[] f. Lots of litter in your neighborhood	35	16	13	7	9	4	3	5	2	5	0		3.34	

10. As far as you know, do you live in a watershed, or not?

	YES	NO	DK/NA
Watershed	8%	51%	41%

11. Before this call, had you ever heard the term "storm drain" before?

Yes-----	88%
No -----	12
(DON'T READ) DK/NA -----	0

12. Storm drains are the gutters, pipes, and concrete channels that collect water from streets. When water goes into the storm drains in San Diego, does it go to a sewage treatment plant before it is released, or is it released into creeks or the ocean without treatment? If you are not sure, just say so.

Is treated -----	15%
Is not treated -----	39
Not Sure -----	45
(DON'T READ) REF-----	0

13. When polluted water enters storm drains, what do you think is the main problem that this causes?
(RECORD VERBATIM BELOW, THEN SUPERVISOR CODE)

(DON'T READ)

Mention of bay/beach/ocean pollution -----	31%
Harms marine life-----	11
Harms people swimming in ocean -----	3
Pollutes water we drink -----	2
Is ugly/litter/trash -----	2
Blocks drains/creates flooding -----	3
Backs up sewers/sewer system -----	1
Pollution is bad in general-----	8
Mention of children-----	0*
Pollution problems in general -----	14
Bacteria/disease -----	8
Harms environment/ecosystem-----	8
People are causing the problem-----	4
Other-----	6
Not sure-----	12

*May exceed 100% as multiple responses permitted
Less than 0.5%

14. In fact, anything that goes into storm drains can end up in local creeks or the ocean, without any filtering or treatment. Motor oil, leaves and grass, dirt, litter, and pesticides are all examples of pollution that often goes into storm drains in San Diego, and ends up untreated in our creeks and the ocean.

Last year, in 2007, did you see or hear anything about steps the city of San Diego is taking to prevent pollution of storm water?

Yes -----	35%
No -----	60
(DON'T READ) DK/NA -----	5

15. In the past year, do you recall seeing any television commercials on this topic that featured yellow ducks being washed down the street and into the storm drains?

Yes-----	54%
No -----	44
(DON'T READ) DK/NA -----	1

16. In the past year, do you recall seeing or hearing any messages that said "Keep Mission Bay Clean and Safe?"

Yes-----61%
No-----37
(DON'T READ) DK/NA ----- 2

17. Earlier, I mentioned the slogan "Think Blue San Diego." Think Blue is the city of San Diego's program to reduce pollution of the water in the city's storm drains, creeks, and our beaches and oceans. Now that I mention this, had you heard about the Think Blue program before this call?

Yes (ASK Q.18) -----55%
No (SKIP TO Q.19)-----43
(DON'T READ) DK/NA (SKIP TO Q.19) --- 2

ASK Q.18 IF YES ON Q.17

18. Have you seen any of the following from the Think Blue program? (ROTATE) (N = 441)

Table with 3 columns: YES, NO, DK/NA. Rows include: a. A TV commercial, b. The Think Blue website, c. A billboard from Think Blue, d. A brochure from Think Blue, e. Signs on the sides of trucks from Think Blue.

ASK EVERYONE

19. I'd like to read you a couple of slogans for the Think Blue program. Please rate each one on a scale of 1 to 10. Use a 1 if the slogan would not persuade you at all to keep pollution out of storm drains, and a 10 if the slogan would be very persuasive to you to keep pollution out of storm drains. Or use any number in between. (ROTATE)

Table with 12 columns: NOT AT ALL (1-10), VERY (9-10), DK, MEAN. Rows include: a. It's the water that connects us, b. Because we all live downstream, c. A cleaner San Diego starts at your door, d. You are the solution to storm water pollution, e. A change for the better begins with you, Think Blue, f. Think Blue - it's what we do.

20. Now, I want to read you a brief list of items that may pollute water in storm drains in San Diego. Please rate each item on a scale of 1 to 10. Use a 1 if you think it is NOT a serious source of pollution, and a 10 if you think it is a VERY SERIOUS source of pollution of water in storm drains. Or you can use any number in between. **(ROTATE)**

		NOT										VERY SER										DK	MEAN	
		1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	99		
[]	a. Cigarette butts	3%	2%	3%	3%	8%	5%	9%	14%	10%	44%	0%											0%	7.98
[]	b. Industrial plants	3	2	1	2	7	4	7	9	9	52	4											4	8.35
[]	c. Dog droppings	5	4	5	6	13	8	10	14	6	30	1											1	6.94
[]	d. Litter	3	2	2	2	8	6	13	16	9	40	0											0	7.94
[]	e. Sewage spills	3	1	2	2	4	4	5	9	10	60	1											1	8.66
[]	f. Leaves or grass clippings	9	7	11	8	15	8	11	12	5	13	1											1	5.63
[]	g. Over-watering of lawns	10	8	9	9	15	8	10	10	5	15	1											1	5.68
[]	h. Washing down sidewalks or driveways	7	6	8	10	15	9	13	10	5	18	1											1	6.00
[]	i. Dirt washing off property onto the street	7	6	7	11	15	10	11	12	6	15	1											1	5.97
[]	j. Individuals like you	21	10	10	6	12	4	6	8	4	17	4											4	5.02
[]	k. Runoff from people washing their cars on streets or driveways	5	4	6	9	16	10	15	13	5	17	1											1	6.35
[]	l. Motor oil	3	2	1	3	4	3	5	10	10	59	1											1	8.59
[]	m. Food and drink that gets tossed in the street	5	5	4	6	12	9	14	12	9	25	0											0	6.81

21. Now I want to read you a brief list of different actions that some people take to keep polluted water out of storm drains. After you hear each action, please tell me how likely you are to do each one. Use a 1 if in all honesty you probably would not take that action consistently. Use a 10 if you definitely would take that action consistently to help prevent pollution. Or use any number in between. **(ROTATE) (IF NOT APPLY, RECORD AS 99)**

		NOT DO										DEF DO										DK	MEAN	
		1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	99		
[]	a. Pick up litter and trash that is in the gutter in front of your home	6%	1%	2%	2%	5%	3%	5%	12%	10%	55%	1%											1%	8.34
[]	b. Fix your car immediately if you notice any oil stains on your driveway or under your car	4	1	2	1	5	4	7	11	11	53	1											1	8.39
[]	c. Pick up dog waste in front of your home and put it in the trash, even if it is not from your own dog	14	4	4	3	6	4	5	9	6	45	1											1	7.12
ASK IF SINGLE FAMILY HOUSE ON Q.7 (N = 477)																								
[]	d. Sweep up your driveway or sidewalk with a broom instead of hosing it down with water	3	1	1	1	4	3	5	12	11	58	2											2	8.71
[]	e. Fix your sprinklers so they don't wash soil or manure onto the street	7	2	1	2	3	3	5	12	10	52	4											4	8.25
ASK ONLY IF YES TO Q8A (N = 358)																								
[]	f. Take your car to a carwash instead of washing it at home	15	5	3	3	11	5	9	12	10	26	1											1	6.43

22. Now, please tell me if you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with each of the following statements. (ROTATE)

	STR. <u>AGR</u>	S.W. <u>AGR</u>	S.W. <u>DIS</u>	STR. <u>DIS</u>	DK/ <u>NA</u>
<input type="checkbox"/> a. It would really bother me if I saw a neighbor doing something that causes pollution of storm drain water	58%	32%	5%	4%	1%
<input type="checkbox"/> b. I would be really embarrassed if someone saw me doing something that causes pollution of storm drain water	66	24	5	4	1
<input type="checkbox"/> c. If I knew that something I was doing causes pollution of storm drain water, I would stop doing it immediately if I could	80	18	1	1	1
<input type="checkbox"/> d. Most of my neighbors probably wouldn't care if something they normally do was causing pollution of storm drain water	23	31	22	21	3

23. I'd like to read you a brief list of reasons that people often give for not doing more to help keep polluted water out of storm drains. After you hear each one, please tell me if that reason applies to you, or not. (IF APPLY ASK): Does it strongly apply to you or somewhat apply?"

	STR <u>APP</u>	S.W. <u>APP</u>	NOT <u>APP</u>	DK <u>NA</u>
<input type="checkbox"/> a. I don't know that much about what to do	14%	28%	58%	1%
<input type="checkbox"/> b. It is not something that is honestly that important to me	13	15	71	1
<input type="checkbox"/> c. It's too much of a hassle to do a lot of this	7	19	74	1
<input type="checkbox"/> d. I would like to do more but I just don't have time	15	33	52	1
<input type="checkbox"/> e. I don't go to the beach so the pollution does not affect me	9	12	77	2
<input type="checkbox"/> f. What I do is too small to make a difference	9	17	73	1
<input type="checkbox"/> g. No one else I know is doing anything	11	19	66	3
<input type="checkbox"/> h. Government should take care of this	23	27	49	1

24. I'd like to read you a brief list of things that concern some people here about the possible consequences of polluted water in storm drains. After you hear each one, please rate it on scale of 1 to 10. Use a 1 if that item does not concern you at all, a 10 if it concerns you a great deal, or any number in between. (ROTATE) (IF DK/NA, RECORD AS 99)

The consequences of storm drain pollution for:

	NOT										GREAT DEAL										DK	MEAN	
	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	99		
<input type="checkbox"/> a. Your health	3%	1%	2%	1%	6%	3%	6%	11%	8%	61%	1%											1%	8.66
<input type="checkbox"/> b. Your safety	3	1	2	2	6	4	6	12	7	57	1											1	8.48
<input type="checkbox"/> c. Your property values	6	2	4	1	6	4	10	11	9	44	2											2	7.80
<input type="checkbox"/> e. Land animals	5	1	3	2	9	5	9	15	8	43	1											1	7.85
<input type="checkbox"/> f. Marine life	3	0	1	2	4	4	6	12	11	58	1											1	8.71
<input type="checkbox"/> g. The local economy	4	1	2	2	8	6	11	15	8	43	1											1	7.96
<input type="checkbox"/> h. Future generations in San Diego	2	1	1	1	4	2	7	11	9	62	0											0	8.82
<input type="checkbox"/> i. Children	2	0	1	1	3	3	4	9	8	68	1											1	9.04
<input type="checkbox"/> j. Local habitats	3	1	1	1	5	4	8	12	11	53	2											2	8.59
<input type="checkbox"/> k. Visitors to San Diego	6	2	3	3	10	7	12	16	7	34	1											1	7.35
<input type="checkbox"/> l. Your lifestyle	5	3	2	3	10	4	9	13	7	43	2											2	7.79
<input type="checkbox"/> m. Migrating birds	7	2	2	2	10	7	8	13	6	40	2											2	7.50

25. How would you most prefer to get information about ways to prevent polluted water from entering storm drains and the ocean? (READ):

- [] From television -----49%
- [] From newspapers-----11
- [] From a website -----13
- [] From brochures-----18
- (DON'T READ) Other-----6
- (DON'T READ) None -----1
- (DON'T READ) DK/NA -----1

HAVE JUST A FEW ADDITIONAL QUESTIONS FOR STATISTICAL PURPOSES ONLY

26. Are you of Hispanic or Latino origin or descent, or do you consider yourself Hispanic or Latino?

- Yes-----28%
- No -----70
- Refused-----3

27. Would you describe your race as Black or African-American; Asian or Asian-American; White or Caucasian; Native American, mixed ethnicity, or something else?

- African-American-----9%
- Asian-American-----6
- Caucasian-----50
- Native American-----2
- Mixed ethnicity-----9
- Other -----22
- Refused-----4

28. What was the last level of school you completed? (IF COLLEGE GRAD, CLARIFY IF 2 YEAR ASSOCIATE OR 4 YEAR BACHELOR DEGREE)

- LESS THAN GRADE 12-----6%
- HIGH SCHOOL GRADUATE-----20
- SOME COLLEGE, NO DEGREE-----22
- ASSOCIATE DEGREE -----8
- BACHELOR'S DEGREE/COLLEGE GRAD -----25
- POST GRADUATE DEGREE
- PROFESSIONAL DEGREE -----17
- REFUSED-----2

29. What is your age, please? (RECORD IT EXACTLY AND CIRCLE APPROPRIATE CATEGORY BELOW.)
AGE: _____ (IF RESPONDENT DECLINES TO STATE AGE, WRITE "999" IN BLANKS ABOVE AND THEN ASK:)

Which of the following categories includes your age? (READ LIST.)

- 18-29 -----25%
- 30-39 -----22
- 40-49 -----19
- 50-64 -----17
- 65-74 -----7
- 75 or older-----7
- (DON'T READ) REFUSED-----3

30. Finally, what is the zip code where you live?

- 91902 (San Diego Bay) -----1%
- 91911 (San Diego Bay) -----3
- 91913 (San Diego Bay)-----1
- 91915 (San Diego Bay)-----0*

91932 (Tijuana River)-----	1	92116 (San Diego Bay)-----	3
91942 (San Diego River)-----	1	92117 (Mission Bay)-----	3
91945 (San Diego Bay)-----	1	92118 (San Diego Bay)-----	0*
91950 (San Diego Bay)-----	2	92119 (San Diego River)-----	2
91977 (San Diego Bay)-----	3	92120 (San Diego River)-----	2
92014 (the Penasquitos [pen-ahs-KEY-toe] and San Dieguito [dee-A-GEE-toe Rivers) ---	1	92121 (Penasquitos)-----	0
92020 (San Diego River)-----	2	92122 (Mission Bay)-----	1
92025 (San Dieguito River)-----	2	92123 (San Diego River)-----	1
92027 (San Dieguito River)-----	2	92124 (San Diego River)-----	2
92029 (San Dieguito River)-----	1	92126 (Penasquitos)-----	2
92037 (Mission Bay)-----	1	92127 (San Dieguito River)-----	2
92064 (Penasquitos River)-----	1	92128 (the Penasquitos and San Dieguito Rivers)-----	3
92065 (San Dieguito River)-----	1	92129 (Penasquitos River)-----	4
92067 (San Dieguito River)-----	0	92130 (Penasquitos River)-----	2
92075 (San Dieguito River)-----	0*	92131 (Penasquitos River)-----	1
92101 (San Diego Bay)-----	1	92133 (San Diego Bay)-----	0
92102 (San Diego Bay)-----	3	92134 (San Diego Bay)-----	0
92103 (San Diego Bay/River)-----	1	92135 (San Diego Bay)-----	0
92104 (San Diego Bay)-----	3	92136 (San Diego Bay)-----	0
92105 (San Diego Bay)-----	4	92139 (San Diego Bay)-----	3
92106 (San Diego Bay)-----	1	92140 (San Diego Bay)-----	0
92107 (San Diego Bay)-----	2	92145 (Mission Bay and San Diego River)-----	0*
92108 (San Diego River)-----	1	92152 (San Diego Bay and Tijuana River)-----	0*
92109 (Mission Bay)-----	2	92154 (Tijuana River and San Diego Bay)-----	6
92110 (Mission Bay)-----	1	92173 (Tijuana River)-----	9
92111 (San Diego River)-----	2	Other-----	
92113 (San Diego Bay)-----	2	Not sure-----	
92114 (San Diego Bay)-----	5	* = Less than 0.5%	
92115 (San Diego Bay and San Diego River)----	4		

★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★
 My supervisor may be calling you to confirm that this interview took place. May I have your first name so she can call and ask for you?

 Name Telephone #

That's all the questions I have. Thank you very much for participating in the survey.

CALCULATE AND RECORD INTERVIEW LENGTH. RECORD GENDER ON THE FIRST PAGE.

I AFFIRM THAT THE ABOVE INFORMATION IS ACCURATELY RECORDED FROM THE RESPONDENT'S STATEMENTS.

 Interviewer's Signature Date

English-----97%
 Spanish----- 3