Findings from Opinion Research

2007 SAN DIEGO STORM WATER SURVEY

Conducted for the City of San Diego Storm Water Pollution Prevention Division

**GOODWIN SIMON VICTORIA RESEARCH** 

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### METHODOLOGY

The San Diego Storm Water Pollution Prevention Division asked Goodwin Simon Victoria Research (GSVR) to conduct a telephone survey of adult residents of the San Diego. The purposes of the survey include:

- To explore attitudes about storm water pollution,
- To explore barriers to behavioral change that might reduce storm water pollution, and
- To assess different potential motivations for change including those that address barriers.
- Provide information that can be used in formulating a community based social marketing program.

This study was conducted between January 31 and February 7, 2007. GSVR conducted 800 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 and ethnicity to match U.S. Census data. Interviews were conducted in both English and Spanish.

#### Table 1: Methodology

Technique Interview Length Universe Field Dates Sample Telephone interviewing 20 minutes Adult residents of San Diego January 31 to February 7, 2007 Random-digit-dial

Sample Size	800
Margin of Error	+/- 3.2% for the sample overall
Languages	English and Spanish

A few questions in this survey were asked in similar studies conducted in previous years by a different vendor. Where appropriate, we compare current results from this survey with those from previous studies. However, the survey questions changed substantially this year. This makes comparisons with results from previous years less useful for several reasons:

- First, with a different vendor there are possible differences in sampling methodology, interviewing practices, and open-ended question coding practices.
- Second, even if the question wording remains unchanged, differences in the question order or in what was asked previously in the survey can introduce biases.

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.

Where statistically significant and relevant, we do break out results by watershed. Since zip codes are the smallest geographic division that we can use to break out results, findings by watersheds are necessarily inexact. The following are the zip codes we used for each watershed:

TA7 ( 1 1	
Watershed	Zip Code
	91977, 92101, 92102, 92103, 92014, 92105, 92016,
	92107, 92113, 92114, 92115, 92116, 92118, 92133,
San Diego Bay	92134, 92135, 92136 ,92139, 92140, 92152, 92154,
Tijuana River	91932, 92152, 92154
Mission Bay	92037, 92109, 92110, 92117, 92122, 92145
	91942, 92020, 92103, 92108, 92111, 92115, 92119,
San Diego River	92120, 92123, 92124, 92145
	92014, 92064, 92121, 92126, 92128, 92129, 92130,
Penasquitos River	92131
	92014, 92025, 92026, 92029, 92065, 92067, 92075,
San Dieguito River	92127, 92128

#### Table 2: Watersheds by Zip Code

Note that some zip codes are found in more than one watershed. In addition, we note that there are only 36 cases for the Tijuana River watershed. However, in the response to many questions we note significant differences between residents in this watershed compared to other residents. While we generally exercise caution in comparing results from a sampling group this small, the differences between residents in the Tijuana River watershed and elsewhere in the city are often so large that they merit mention in this memo.

### **EXECUTIVE SUMMARY**

#### **OVERVIEW AND RECOMMENDATIONS**

The survey of 800 adult residents of San Diego was conducted between January 31 and February 7, 2007, 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.

Most fundamentally, the survey shows deep interest in and concern about storm water pollution among San Diego residents. More than three in four say that pollution of the ocean, bay, and beaches is a very important issue facing the city, matching concern about the quality of public schools.

Further, most residents indicate willingness to take actions to help prevent storm water pollution, especially keeping trash and recycling bins covered to prevent litter, recycling used motor oil, washing paint brushes properly, sweeping rather than hosing down sidewalks, picking up litter and trash, and fixing sprinklers. Between 61% and 85% of residents rated their willingness to take these actions as a 10 on a 1 to 10 scale.

We also found that about 45% of residents indicate strong interest in learning more about what they can do to reduce storm water pollution and beach closures due to pollution, and to reduce litter and pollution in their neighborhoods.

However, residents are not that well informed about how the storm drain system works. Only 9% knew they lived in a watershed and fewer than half (46%) knew that storm drain water is not treated. For comparison, a similar question asked in 2005 in San Bernardino County found that only 19% knew storm water was not treated, but in 2003, 57% in the city of Santa Barbara knew that storm water was not treated.

While 91% overall were familiar with the term "storm drain," that figure was lower among Latinos, renters, and lesser educated residents.

We also learn that residents 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.

Just over half (55%) say they saw or heard something in 2006 about how ways to prevent pollution of storm drains, but only 36% said they heard anything specifically about steps the city is taking to prevent storm drain pollution. Forty-six percent say they have heard the slogan "Think Blue San Diego."

The survey does include some possible evidence of the successful impact of past Think Blue activities: 53% of those who said they had heard about the Think Blue campaign knew that storm water is not treated, compared to 40% who had not heard about Think Blue.

Sizable proportions of residents do engage in polluting behaviors, including washing vehicles at home and using pesticides or weed-killers. Sizable proportions report seeing dog waste in their neighborhoods, litter, people washing their cars on the driveway and in the street, pesticide use, and yard waste or trash being washed or blown into the street.

The key barriers to participation in preventing storm water pollution appear to be lack of information and perceived lack of time, along with people saying they don't go to the beach so the pollution does not affect them. One interesting barrier to proper disposal of used motor oil is lack of a suitable container for transporting it to a recycling facility.

The most powerful motivations for taking action to reduce storm water pollution are to protect the health of people using the ocean, to protect the marine environment, to protect the legacy we leave behind for our children, and to connect with our neighbors.

We see in general stronger interest in undertaking efforts to reduce storm water pollution among women than men, among Latinos compared to among 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. In particular, encouraging behaviors such as proper recycling of used motor oil, keeping trash bins covered, picking up litter, fixing oil leaks, fixing sprinklers, proper cleanup of paint, and sweeping up driveways seem ripe 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.

We know that most residents already see pollution of the ocean as an important problem (with pollution of creeks seen as a less important problem). We also know that most residents recognize that pollution of neighborhood storm drains contributes to pollution of the ocean (and that storm drain pollution is seen as more important of a problem than pollution of storm water).

These findings would suggest that public communications designed to help residents acknowledge their role in both creating the pollution and solving the problem will prove valuable. We want residents to feel like they can make a difference in solving this problem to protect the ocean, to protect their children, and to leave behind a legacy for future generations.

Moreover, we want to address the perceived barriers of lack of time and lack of information.

Some specific targets might include use of weed-killers and pesticides among Black homeowners and 50+ homeowners, oil changing among Latinos, trash blowing from bins among Latinos, and hosing down the sidewalks among 50+ men.

#### **KEY FINDINGS**

#### Strong Awareness of and Interest in Storm Water Pollution

• 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 77% say that pollution of the city's oceans, bays, and beaches is a very important issue, equal in importance to the quality of public education and far exceeding the proportion who said that traffic was a very important issue for the city.

- The high level of awareness and concern about the problem of storm water pollution suggests that residents are open to learning more about how to address it.
- Women, Latinos, renters, and 50+ residents appear to be most concerned about storm water pollution.

#### Broken Water and Sewer Pipes Also Major Issue

- The same proportion, 77%, also considers "deteriorating and broken city water and sewer pipes" to be a very important issue facing the city. This concern is another possible motivation for action to address the city's storm drain system.
- The proportion that says that pollution of the city's creeks and streams is very important is slightly lower at 65%. This suggests keeping the focus on the beaches and ocean rather than on local creeks.

#### Storm <u>Drain</u> Pollution over Storm <u>Water</u> Pollution

- The survey shows a greater concern among residents about pollution of storm drains compared to pollution of storm water. Seventy-two percent say that pollution of storm drains is a very important issue, compared to 61% who say pollution of storm water is a very important issue.
- Interestingly, it is those least concerned about pollution of oceans, bays, and beaches who appear to be most sensitive to this difference in language. That is, white men, single family home dwellers, younger residents, and do-it-yourself types are most sensitive to the language.

#### Moderate Ratings for the City on Storm Water Pollution Prevention

• Residents give the city moderate ratings for preventing pollution in storm drains and for preventing pollution of San Diego's ocean, bays, and beaches. On a scale of 1 (poor) to 10 (excellent), the former earns a mean score of 5.16, and the latter earns a means core of 5.24. This means that most of the ratings were found near the mid-point of the scale.

• There is no significant difference in ratings between those familiar with the Think Blue campaign and those who have not heard of it.

#### Many Engage in Polluting Behaviors

- Nearly half of residents, 46%, say they wash a vehicle at home. This includes more homeowners than renters, as well as those who engage in other do-it-yourself activities.
- A third (32%) have a dog at home, and especially those under age 65, whites and Latinos compared to Blacks and Asians, and homeowners compared to renters.
- Twelve percent change the oil in their vehicles at home, including more men than women, more under 35 than over 35, more Asians and Latinos compared to whites, and more men with no college compared to educated men.
- Eleven percent report having yard waste or trash blow into the street from their garbage bins, including large proportions in the Tijuana River watershed and Latinos in the San Diego Bay watershed.
- A third (33%) of single family home dwellers say they use pesticides or weedkillers on their gardens, especially 50+ men, residents of the San Dieguito River watershed, less educated residents, and Blacks.
- A third (33%) of single family home dwellers say they hose down their driveways and sidewalks, especially men over 50 and men with no college degree, oil changers, and residents of the Tijuana River watershed.
- More than one in five (22%) single family home dwellers say they do construction or major landscaping at their home.

#### **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, lots of litter in the neighborhood, pesticide or weed-killers being used on the lawn or

garden, and litter being blown from trash bins that are left uncovered. Roughly 50% to 80% say they have seen these things in their neighborhoods.

- A second tier of frequency seen in neighborhoods is water used to wash stucco or concrete running into the street, hillside erosion resulting in soil being washed into the street, and soil or manure being washed from lawns into the street. Roughly 30% to 50% say they have seen these things in their neighborhoods.
- The least observed behaviors are dog waste being washed into the street, motor oil being poured into the ground or on the street, and paint brushes being washed out in the street. Only about 25% or less say they have seen these things in their neighborhoods.
- Many of these behaviors are most often seen by renters and apartment dwellers, non-whites, and younger residents (under 35).

#### Lack of Knowledge Prevalent on Storm Water Issues

- Few residents of San Diego just 9% -- know that they live in a watershed.
- However, almost everyone 91% -- knows the term "storm drain." We did, however, observe significantly lower familiarity with that term in the Tijuana River and San Dieguito River watersheds, among those with no college, and among Latinos and especially Latinos speaking in Spanish.
- Fewer than half the adult residents of San Diego, just 46%, correctly knows that storm drain water is not treated. Seventeen percent thought it was treated, and the balance of 36% were not sure. Those less informed about this include Blacks and Latinos, renters, and those in the San Diego River and Penasquitos River watersheds. We also see that among those who say they had heard about the Think Blue campaign, 53% knew that storm water is not treated compared to 40% who had not heard about the Think Blue effort.
- Most residents are aware that neighborhood storm drains contribute to pollution of San Diego's creeks and ocean. Seventy-five percent say that storm drains add a great deal or some pollution to the creeks and ocean. This is similar to the 78% who say that sewage spills add pollution to the creeks

and ocean. Men over age 65 seem least informed about the impact of storm drains on ocean pollution.

#### Sizable Awareness of Efforts to Reduce Storm Drain Pollution

- More than half, 55%, said they had heard something in 2006 about ways that people can prevent pollution of storm drains. Awareness is lower among those under age 35 compared to older residents, among those with limited education levels, among minorities, and among renters. Clearly there is a strong effect related to socioeconomic status.
- Thirty-six percent said they saw or heard something in 2006 about steps the city is taking to prevent pollution of storm water.
- Forty-six 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. Awareness is lower among seniors, the less educated, Latinos, and renters.

#### High Interest in Learning About How to Reduce Storm Water Pollution

• Between 40% and 50% indicated a strong interest (an 8, 9, or 10 rating on a 10 point scale) in learning how to reduce pollution of storm water, to reduce beach closures due to pollution, and to clean up litter and pollution in their neighborhood. In general, we found that women, younger residents, Latinos, and less educated residents were more interested in learning this information. Interestingly, many of these groups include those who are in fact least informed on these topics.

#### Strong Willingness to Take Actions to Reduce Storm Water Pollution

• Roughly 50% to 80% of residents said they would definitely be willing to take most of the actions we suggested to reduce pollution of storm drains. Those actions that residents are most likely to take include recycling used motor oil, washing paint brushes in the sink instead of the street, keeping trash and recycling bins covered, picking up litter and trash on the street, fixing oil leaks, sweeping the sidewalk instead of washing it down, and fixing sprinklers so they don't wash soil on the street.

- There was considerably less willingness to wash cars on the lawn rather than a driveway or street, purchase less polluting products if they cost more, take the car to a carwash, use barriers or a wet-vac to keep wash water from going in the street after cleaning stucco or concrete, and to pick up other people's dog waste.
- In general, women and Latinos are more likely to indicate a strong willingness to undertake these actions. Asians are very unwilling to pick up trash and dog waste from the front of their home.

#### 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 seem to be lack of time and education (especially among younger residents, those with less education, and non-whites), and a sense that they don't go to the beach so the pollution does not affect them (especially among seniors and Latinos).
- Specifically on the issue of recycling used motor oil, we found that not having a suitable container for transporting the oil was the top barrier, and especially among white and Latino women.

#### Protecting Human Health, Protecting Environment for Next Generation Top Motivations for Taking Action

- Three-quarters of residents said they would be much more likely to take action to prevent storm water pollution to protect the health of those who swim in the ocean, to protect the marine environment, to preserve the environment for the next generation, because water is something we all share, and because a neighborhood free of trash is safer. These were the top motivations.
- Older women, less educated women, and Latinos react with more enthusiasm to all of these items.

### **DETAILED FINDINGS**

### A. Order of Findings

This report presents results in the following order:

- It begins by looking 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.
- We then ask questions that will help determine the level of knowledge residents have about storm water pollution and the city's efforts to address it.
- The next set of questions seek to explore how interested residents are in actions that might help reduce storm water pollution.
- We then look at barriers to participating in activities that might reduce storm water pollution.
- Finally, we rate responses to different motivations for reducing storm water pollution.

### **B.** Importance Of Issues Facing San Diego

We start with a battery of questions that asked residents to rate the importance of seven issues facing the city. The results show that residents see pollution of the city's oceans, bays, and streams as a very important problem, equal in concern to the quality of public schools and exceeding concern about traffic congestion.

This is a very important finding, suggesting that residents are greatly concerned about pollution of local waters. That they are aware that a problem exists, and that they consider this to be a very serious problem – equal in concern to worries about public schools – indicates that residents are at least open to learning more about what they can to do to address it.

More specifically, as shown in Figure 1, fully 77% say that pollution of San Diego's ocean, bays, and beaches is a very serious problem, with another 20% who say it is a somewhat serious problem.



#### Figure 1: Percent Rating Each Problem as Very or Somewhat Serious

A nearly identical proportion of residents believes that broken water and sewer pipes are serious problems, and only a slightly smaller proportion say that pollution of storm drains is a serious problem.

We used a split sample technique to compare reaction to "pollution of storm drains in San Diego" with "pollution of storm water in San Diego." We see a significantly higher proportion of residents who are very concerned about pollution of storm drains, suggesting that this is the language we should be using in our communications efforts.

It is also of interest to note that "pollution of San Diego's creeks and streams" is a slightly lower concern than pollution of "oceans, bays, and beaches." This also is an important finding when it comes to language.

Again, we want to be talking about pollution of storm drains, and about pollution of the ocean, bays, and beaches.

Finally, the high level of concern about "broken and deteriorating city water and sewer pipes" is further indication of the high level of attention these infrastructure issues have attained among San Diego residents.

#### 1. Pollution of San Diego's oceans, bays, and beaches (77% very important)

While the proportions are high among all residents, the groups most likely to say that pollution of the city's ocean, bays, and beaches is very important are:

- Women (82%) compared to men (71%); this difference is limited to white women (82%) compared to white men (66%), and is not seen among Latinos by gender
- Residents age 50 and older (82%) compared to younger residents (about 71%)
- Residents of the San Diego River (80%), San Diego Bay (81%), and Tijuana River 83%) watersheds
- Latinos (84%) compared to whites (75%)
- Renters (81%) compared to homeowners (74%)

• Whites with no college degree (79%) compared to better educated whites (69%).

#### 2. Broken or deteriorating city water and sewer pipes (77%)

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

- White women (83%) compared to white men (75%)
- Residents age 50 and older (about 85%) compared to younger residents (about 73%)
- Residents of the San Diego River watershed (83%)
- Whites with no college degree (83%) compared to whites with a college degree (76%)
- Blacks (86%) compared to Asians (63%).

#### 3. Pollution of storm drains in San Diego (72%)

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

- Residents under age 35 (78%)
- Residents in the Tijuana River watershed (94%)
- Those without a college degree (77%) compared to those with a college degree (65%)
- Latino women (81%) compared to white men (67%)
- Latino renters (83%) compared to white homeowners (69%)

Those most likely to be less concerned about pollution of storm water compared to pollution in storm drains are whites with less than a college degree, single family home dwellers, white men, those under 35, and do-it-yourself types (home oil changers, users of weed-killers, and those who hose their driveways). In short,

those who in general are less concerned about storm water pollution issues appear to be especially sensitive to this language difference.

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

### C. 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 collars efficiently.

The question asked residents to rate each area on a scale of one to ten, where one mean they felt the city was doing a very poor job, and a ten meant they felt the city as doing an excellent job. In Figure 2, we present mean score results.



#### Figure 2: Rating the Job the City is Doing on 1-10 Scale

The mean scores for pollution prevention are in the 5s, indicating that about as many 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 when it comes to preventing pollution in storm drains, and only 13% rate the city with an 8, 9, or 10 in this area. Eleven percent are not sure.

The same proportion, 20%, rate the city with a 1, 2, or 3 for preventing pollution of the city's oceans, bays, and beaches, with 14% who give the city an 8, 9, or 10 rating for this. Seven percent are not sure.

Ratings for the city's performance in these areas outperform views of how well the city spends money. Thirty-eight percent rate the city with a 1, 2, or 3 in this area.

#### 1. Preventing pollution in storm drains (5.16 mean score)

Ratings for how well the city is doing in preventing pollution in storm drains vary as following:

- They are significantly more positive among those under age 50 (a mean score of 5.4) than with older residents (a mean score of 4.7)
- They are significantly more positive among those with no college experience (6.1)
- They are significantly higher among Latinos (6.2) compared to non-Latinos (4.8)
- They are significantly higher among those who think that storm water is treated (5.9) compared to those who know it is not treated (4.8)
- They are significantly less positive in the San Diego River (4.9) and Mission Bay (4.8) 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.

### D. 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 had major construction and landscaping at their home, have yard waste or trash blowing from their garbage bins, change their oil at home, or rinse their paint brushes in the street.



Figure 3: Percent Participating in Potentially Polluting Behaviors

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

- Residents in the Tijuana River watershed (68%)
- Homeowners (50%) compared to renters (39%), and single family home dwellers (55%) compared to apartment/condo dwellers (23%)
- Those who also change the oil at home (80%), use weed-killers (58%), have construction projects (65%), and hose their driveway (66%).

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

- Those 18-64 (about 34%) compared to seniors (21%)
- Whites (36%) and Latinos (35%) compared to Blacks (18%) and Asians (9%)
- Homeowners (38%) compared to renters (23%) and single family home dwellers (40%) compared to apartment/condo dwellers (12%).

### 3. We find the highest proportion of those who change the oil in their vehicle at home among:

- Men (16%) compared to women (7%)
- Those under age 35 (17%) compared to only about 8% of those older
- Residents of the Tijuana River watershed (34%)
- Single family home dwellers (14%) compared to apartment/condo dwellers (5%)
- Men with no college degree (20%)
- Latinos in the San Diego Bay watershed (20%)
- Asians (23%) and Latinos (18%) compared to whites (10%).

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

- Men (14%) compared to women (8%)
- Those under age 50 (about 13%) compared to older residents (7%)
- Tijuana River watershed residents (34%)
- Apartment/condo dwellers (16%) compared to single family home dwellers (9%)
- Men with no college degree (20%)
- Latinos in the San Diego Bay watershed (20%).

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

- 5. We find the highest proportion of those who use pesticides and weedkillers among:
  - Men over 50 (40%) compared to women or younger men
  - Residents of the San Dieguito River watershed (65%)
  - Those with a college degree (about 40%) compared to about 25% of those with no college degree
  - Blacks (52%) compared to 33% of whites and 24% of Latinos.
- 6. We find the highest proportions of those who hose down the driveway or sidewalk in front of their home among:
  - Men over 50 (40%) compared to women or younger men
  - Residents in the Tijuana River watershed (61%)
  - Men with no college degree (43%)
  - Oil changers (45%).

7. We find no significant variation in the proportion reporting construction or major landscaping projects at their homes or washing paint into the street.

# E. Frequency Of Seeing Polluting Behavior In The Neighborhood

We then asked residents how often they see 12 pollution-causing behaviors in their neighborhoods. The responses were ranked on a scale of 1 to 10, with 1 meaning they never see this behavior, and 10 meaning they see it frequently. The results are presented in Figure 4 using a mean score.



#### Figure 4: Frequency of Observing Polluting Behaviors (Mean Score on 1-10 Scale)

The most frequently observed behaviors are people washing their cars on the driveway or in the street, dog waste being left on the sidewalk, lots of litter in the neighborhood, pesticide or weed-killers being used on the lawn or garden, and litter being blown from trash bins that are left uncovered.

A second tier of frequency is water used to wash stucco or concrete running into the street, hillside erosion resulting in soil being washed into the street, and soil or manure being washed from lawns into the street.

The least observed behaviors are dog waste being washed into the street, motor oil being poured into the ground or on the street, and paint brushes being washed out in the street.

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

- Those under 50 (mean score of about 4.7) compared to older residents (about 3.7)
- Blacks (5.3) compared to whites (4.4).

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:

- Renters (4.0) compared to homeowners (3.4), and apartment/condo dwellers (4.4) compared to single family home dwellers (3.3)
- Those under age 50 (about 4.0) compared to those older residents (3.1)
- The San Diego Bay watershed (4.0).

About one in three (34%) 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:

• Renters (3.5) compared to homeowners (3.1).

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

- 4. Those most likely to observe lots of litter in their neighborhood include:
  - Those under age 35 (3.6)
  - San Diego Bay watershed residents (3.5)
  - Latinos (3.6) and Blacks (3.7) compared to whites (2.6)
  - Renters (3.5) compared to homeowners (2.6), and apartment/condo dwellers (3.6) compared to single family home dwellers (2.5).

Fully 46% 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:

- Those under age 35 (3.2)
- Mission Bay watershed residents (3.2)
- Those with no college (3.2)
- Single family home dwellers (3.0) compared to apartment/condo dwellers (2.5).

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

## 6. Those most likely to observe trash bins uncovered so that litter is blown into the street include:

- Those under age 35 (3.4)
- Latinos in the San Diego Bay watershed (3.7)
- Those with no college (3.3)
- Apartment/condo dwellers (3.5) compared to single family home dwellers (2.3)

• Latinos (3.5) compared to whites (2.5).

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

- 7. Those most likely to say they have seen water used to wash concrete or stucco running into the street include:
  - Those under age 35 (3.0)
  - San Diego River watershed residents (3.0)
  - Latinas (3.1)
  - Apartment/condo dwellers (2.9) compared to single family home dwellers (2.4)
  - Latino homeowners (3.2).

Fifty-three percent say they have never seen this in their neighborhood.

## 8. Those most likely to say they have seen hillside erosion resulting in soil washing down the hill include:

- Those under age 35 (3.1)
- Apartment/condo dwellers (2.9) compared to single family home dwellers (2.4)
- Asians (3.5).

Fifty-three percent say they have never seen this in their neighborhood.

# 9. Those most likely to say they have seen manure or soil washed from lawns into the street include:

- Those under age 35 (2.3)
- Latinos (2.5) compared to whites (1.9).

Sixty-five percent say they have never seen this in their neighborhood.

- 10. Those most likely to say they have seen people washing dog waste from their sidewalk, yard, or lawn into the street include:
  - Latinos (2.1) compared to whites (1.8)
  - Renters (2.1) compared to homeowners (1.7), and apartment/condo dwellers (2.3) compared to single family home dwellers (1.6).

Seventy-three percent say they have never seen this in their neighborhood.

### **11.** Those most likely to say they have seen people spilling motor oil into the street or onto the ground include:

- Men under age 50 (2.0)
- Those with no college (2.4)
- Latinos (2.1) compared to whites (1.4)
- Latinos under age 50 (2.3) compared to older Latinos (1.6)
- Latinos with no college degree (2.3) compared to Latinos with a college degree (1.7).

Eighty-two percent say they have never seen this in their neighborhood.

### 12. Those most likely to have seen people washing paint brushes in the street, or pouring water used to clean paint brushes in the street, include:

- Those with no college (1.7)
- Latinos (1.6) compared to whites (1.3).

Eighty-five percent say they have never seen this in their neighborhood.

#### F. Familiarity With Issues Related To Storm Water **Pollution**

The survey asked six 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 9% of adults in the city said they live in a watershed. As shown in Figure 5, 45 percent said they did not live in a watershed, and 46% were not sure.



#### Figure 5: Do You Live in a Watershed or Not?

As seen in Table 3 below, the only significant differences in awareness of living in a watershed is by education level (15% were aware among the most educated residents compared to 7% for the least educated), and in Mission Bay (at 16%).

Table 3: Do You Live in a Watershed?		
	<u>% Yes</u>	
Men	10	
Women	7	
18-34	8	

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

#### 2. Sources Of Pollution In San Diego's Creeks And Ocean

There is considerable awareness of "neighborhood storm drains" as a source of pollution of San Diego's creeks and ocean. Seventy-five percent say that storm drains contribute a "great deal" or "some" to this pollution. A slightly higher proportion, 78%, say that sewage spills contribute to pollution of the creeks and ocean.



Figure 6: How Much Do Each of the Following Contribute to Pollution of San Diego's Creeks and Ocean?

Awareness of the impact of storm drain pollution on pollution of creeks and oceans varies as follows:

- Awareness is much lower among seniors at 23% compared to about 40% among younger residents. Senior men appear to be the least informed on this.
- Awareness is much higher in the Mission Bay watershed, at 46%. It appears to be lower in the Tijuana River watershed at 22%.
- Awareness is higher among renters at 43% compared to homeowners at 35%, and among apartment/condo dwellers at 43% than among single family home dwellers at 36%.

#### 3. Familiarity with Term "Storm Drain"

As shown in Figure 7, fully 91% said they had heard the term "storm drain" before this call.

Figure 7:	Have You	Heard the	Term	"Storm	Drain"	Before	this	Call?
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However, as shown in Table 4, this figure masks some significant differences in familiarity with storm drains.

- In the Tijuana River watershed, only 72% were familiar with it (28% were not)
- In the San Dieguito River watershed, only 75% were familiar with it and 25% were not
- Among those with no college, only 80% were familiar with it and 20% were not.
- Among Latinos, 23% were not familiar with this term. We also see that 21% of Asians were not familiar with it
- Among Latinos speaking in English, 85% were familiar with the term compared to 59% of them speaking in Spanish

• Renters were more than twice as likely as homeowners to not be familiar with the term (12% compared to 7%), and 95% of single family home dwellers knew the term compared to 88% of apartment and condo dwellers.

	<u>% Yes</u>	<u>% No</u>	
Men	92	9	
Women	89	11	
18-34	89	11	
35-49	90	10	
50-64	96	4	
65+	90	10	
Men 18-49	91	9	
Men 50+	95	5	
Women 18-49	88	12	
Women 50+	92	8	
San Diego Bay watershed	89	11	
San Diego River watershed	93	7	
Mission Bay watershed	93	7	
Tijuana River watershed	72	28	
San Dieguito River watershed	75	25	
Penasquitos River watershed	95	5	
Less than college	80	20	
Some college	94	6	
College grad	96	4	
Post college	96	4	
White	95	5	
Black	93	7	
Asian	79	21	
Latino	77	23	
Homeowners	93	7	
Renters	88	12	
Single family home dwellers	95	5	
Apartment/condo dwellers	88	12	

#### Table 4: Before This Call, Were You Familiar with the Term "Storm Drain?"

#### 4. 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." Nearly half, 46%, knew that the water is not treated. But 17% thought it was treated, and 37% were not sure.





There were significant variations in knowledge on this subject. As shown in Table 5, we see sizable differences by the following:

- Gender, with men (52% say storm water is not treated) better informed than women (41%)
- Age, with those under 35 (38%) and those over age 64 (40%) far less informed than middle-aged residents
- Watershed, with those in the San Diego River (53%) and Penasquitos (60%) watersheds far better informed than others
- Education, with awareness rising from 34% of those with no college to 56% of those with a post-college degree

- Race/ethnicity, with Latinos (32%) and Blacks (29%) less informed than whites (51%) or Asians (51%)
- Home ownership status, with renters less informed (38%) than homeowners (52%).

	%Treated/	% Not	
	Not Sure	Treated	
Men	48	52	
Women	59	41	
18-34	62	38	
35-49	45	55	
50-64	50	50	
65+	60	40	
Men 18-49	50	50	
Men 50+	47	53	
Women 18-49	57	43	
Women 50+	61	39	
San Diego Bay watershed	59	41	
San Diego River watershed	47	53	
Mission Bay watershed	53	47	
Tijuana River watershed	73	27	
San Dieguito River watershed	62	38	
Penasquitos River watershed	40	60	
Less than college	66	34	
Some college	58	42	
College grad	44	57	
Post college	44	56	
White	49	51	
Black	71	29	
Asian	49	51	
Latino	68	32	
Homeowners	48	52	
Renters	62	38	
Single family home dwellers	51	49	
Apartment/condo dwellers	54	46	

 Table 5: Is Storm Water Treated?

Clearly there are major differences by socioeconomic status when it comes to awareness of this most basic information about how the storm drain system works.

In addition, among those who said that in 2006 they had heard about ways that people can prevent pollution of storm water in San Diego, 54% knew that storm water is not treated, compared to 37% who have not heard anything. Similarly, 53% of those who said they had heard about the Think Blue campaign knew that storm water is not treated, compared to 40% who had not heard about Think Blue. These figures suggest that the Think Blue campaign is successfully transmitting information to residents.

#### 5. Awareness of Pollution Prevention Information

Fifty-five percent said that in 2006 they had heard something about how people can prevent pollution of storm drains.



Figure 9: In 2006, Did You See or Hear Anything About Ways People Can Prevent Pollution of Storm Water in San Diego?

Those most likely to say they saw or heard something in 2006 about how people can prevent storm water pollution include:

- Those over age 35 (about 60%) compared to just 44% of younger residents
- Penasquitos River watershed residents (64%)

- Those with at least some college (about 60%) compared to those with no college (40%)
- Whites (61%) compared to Blacks (48%), Asians (43%), and Latinos (43%)
- Homeowners (61%) compared to renters (48%), and single family home dwellers (61%) compared to apartment/condo dwellers (48%).

	<u>% Yes</u>
Men	58
Women	53
18-34	44
35-49	58
50-64	65
65+	58
Men 18-49	55
Men 50+	66
Women 18-49	47
Women 50+	60
San Diego Bay watershed	53
San Diego River watershed	58
Mission Bay watershed	60
Tijuana River watershed	62
San Dieguito River watershed	53
Penasquitos River watershed	64
Less than college	40
Some college	66
College grad	53
Post college	64
White	61
Black	48
Asian	43
Latino	43
Homeowners	61
Renters	48
Single family home dweller	61
Apartment/condo dweller	48

#### Table 6: In 2006 Did You See or Hear About Ways to Prevent Storm Water Pollution?

#### 6. Heard the Slogan "Think Blue San Diego"

Forty-six percent say they have heard the slogan "Think Blue San Diego," down slightly from the 54% found in the 2004 survey but ahead of the 31% found in the 2001 survey.



Figure 10: Ever Heard the Slogan "Think Blue San Diego?"

Awareness of the Think Blue slogan varies as following:

- It is considerably lower among seniors at 38%
- It is lower among those with no college, at 36%
- It is lower among Latinos at 37% than among whites at 50%
- It is lower among renters at 42% than among homeowners at 50%, and among apartment/condo dwellers (42%) than among single family home dwellers (51%).

	% Yes
Men	46
Women	46
18-34	44
35-49	49
50-64	51
65+	38
Men 18-49	46
Men 50+	47
Women 18-49	47
Women 50+	45
San Diego Bay watershed	48
San Diego River watershed	40
Mission Bay watershed	42
Tijuana River watershed	50
San Dieguito River watershed	44
Penasquitos River watershed	47
renaoquitos raver materistica	17
Less than college	36
Some college	55
College grad	46
Post college	45
TA71 '	50
White Plast	50
Black	49 25
Asian	33 27
Latino	37
Homeowners	50
Renters	42
Single family home dweller	51
Apartment/condo dweller	42

#### Table 7: Have You Ever Heard the Slogan Think Blue San Diego?

Awareness of the slogan is at 53% among those who knew that storm water is not treated, and is at 41% among those who did not know this.

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

Thirty-six percent said that in 2006 they saw or heard something about steps the city of San Diego is taking to prevent pollution of storm water.



Figure 11: In 2006, 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 28% of those under age 35 are aware of such steps, compared to about 40% of older residents
- Among white homeowners, 37% are familiar with these steps, compared to 25% of white renters
- Among those familiar with the Think Blue slogan, 44% have heard of steps the city is taking, compared to 30% of those not familiar with the slogan.

### G. Actions to Reduce Storm Water Pollution

The survey then asks a series of questions designed to gauge interest among San Diego residents in helping to prevent storm water pollution.

#### 1. Interest in Learning About Actions to Reduce Pollution

We asked residents to rate on a scale of 1 to 10 their interest in learning more about how to reduce pollution of storm water, beach closures, and litter and pollution in their neighborhood. Of the three, there was slightly more interest in learning how to prevent beach closures due to pollution, and slightly less interest in learning about what can be done to clean up litter and pollution in their neighborhoods. (See Figure 12.)

### Figure 12: Rating Interest in Learning About Actions to Reduce Pollution (Mean Scores on 1-10 Scale)



We note first that interest is fairly strong for all three topics. Even for the weakest item (cleaning up local litter and pollution), 43% rated their interest in learning more as an 8, 9, or 10. Only 28% rated their interest as a 1, 2, or 3.

- 1. Those most interested in learning more about how to help reduce pollution of storm water include:
  - Women (a mean score of 6.9) compared to men (5.9)
  - Those under age 35 (7.1) compared those age 50 and older (5.7)
  - Latinos (7.5) compared to whites (6.1).
- 2. Those most interested in learning more about how to stop beach closures include:
  - Women (a mean score of 7.1) compared to men (6.2)
  - Those under age 35 (7.4) compared those age 50 and older (6.0)
  - Those with no college (7.2) compared to more educated residents (about 6.5)
  - Latinos (7.6) compared to whites (6.4).

# 3. Those most interested in learning more about how to clean up litter and pollution in their neighborhood include:

- Women (a mean score of 6.8) compared to men (5.8)
- Those under age 35 (6.8) compared those age 50 and older (5.8)
- Latinos (7.5) compared to whites (5.9)
- Renters (6.7) compared to owners (6.0).

### 2. Willingness to Take Specific Actions

We then asked residents about their willingness to take 13 specific actions. We asked them to rate their willingness on a scale of 1 to 10, where 1 meant it was something they would <u>not</u> do, and 10 meant it was something they <u>definitely</u> would do to help prevent pollution. The mean score results are displayed in Figure 13. (Some items were asked only of single family home dwellers, some were asked only

of home vehicle washers, and one was asked only of those who change their own vehicle's oil).

We see high levels of potential cooperation for most of the actions described in the poll. Perhaps most surprising is the strong willingness among homeowners to "sweep up your driveway or sidewalk with a broom instead of hosing it down with water." Sixty-four percent rated this as a 10. We also found most residents willing to do the right thing when it comes to motor oil.

But at the bottom of the list are items related to washing cars either on the lawn or taking them to a car wash where the water is recycled. These actions appear to be more than many people are willing to do.



Figure 13: Willingness to Take Actions to Prevent Pollution (Mean Scores on 1-10 Scale)

#### **Top Tier Items**

#### 1. Willingness to recycle used motor oil

This question was asked only of those who say they recycle their own oil. Thus only 92 respondents were asked this question, meaning the cell sizes are too small for much meaningful analysis by resident groups. The data suggest that Latinos are less willing to recycling than others (74% of Latinos rated their willingness as a 10, compared to 90% of non-Latinos), although this difference is not statistically significant at this sample size. Of those asked this question, 85% rated their willingness as a 10.

# 2. Keep trash and recycling bins covered to prevent litter from blowing into the street

Of those asked this question, 84% rated their willingness as a 10. The rating for this item is so high that there is little significant variation in the findings. However, we do see that 91% of Latinas rated their willingness to cover their bins as a 10, compared to 77% of Latinos.

#### 3. Wash used paint brushes in the sink rather than wash them in the street

Fully 74% rated their willingness to do this as a 10, especially:

- Whites (77%) and Latinos (75%) compared to Blacks (61%) and Asians (56%)
- White homeowners (82%) compared to white renters (69%)
- Women under 50 (82%) compared to men (70%).

# 4. 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, 64% rated their willingness to do this with a 10, especially:

- Women (70%) compared to men (58%)
- The San Diego Bay (65%), San Diego River (68%), and Mission Bay watersheds (66%) compared to the Tijuana River (31%) watershed

- Women with no college (74%) compared to college-educated men (57%)
- Latinos (73%) compared to non-Latinos (62%).

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

Sixty-one percent rated their response to this item as a 10.

- Women (70%) were much more likely to do so than men (53%), and especially women over 50 (75%) compared to men under 50 (50%) and women with no college degree (77%)
- Homeowners (65%) were more likely to do so than renters (56%) and especially white renters (47%)
- Among Latinos over 50, 82% rated their willingness to fix oil leaks as a 10, compared to 62% of Latinos under 50.

#### Second-Tier Items

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

Of the single family home dwellers asked this question, 61% rated their response as a 10, and especially:

- Women over 50 (72%) compared to men under 50 (55%)
- Everywhere but the Tijuana River watershed (25%)
- Women with no college degree (71%) compared to others (about 59%)
- Latinas (79%) compared to Latinos (56%).

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

Sixty-one percent rated their response as a 10, and especially:

• Women (68%) compared to men (53%)

- Those over age 34 (about 68%) compared to younger residents (51%); among men under age 50, only 47% rated this as a 10
- While only 26% rated this is a 10 among Asians, about 64% of all others did so
- Single family home dwellers (71%) compared to apartment/condo dwellers (42%)
- White homeowners (68%) compared to white renters (51%).

# 8. Cover up dirt and sand when digging up lawns or gardens to keep it out of the street it if is windy or rainy

Of the homeowners asked about this action, 49% gave a response of 10. This includes:

- Women (54%) compared to men (45%) and especially women over age 50 (57%)
- Everywhere but the Tijuana River watershed (25%)

# 9. Purchase garden and cleaning products that are less polluting, even if they cost a little more or are harder to find

Forty-five percent rated their response to this as a 10, including:

- Tijuana River watershed residents were much more likely than others to rate this as a 10 at 63%
- College-educated men were less likely to rate this as a 10 compared to others at 28%
- Latinos (56%) were more likely to rate this as a 10 than non-Latinos (41%), and especially more than white men (33%)
- Single family home dwellers (49%) compared to apartment/condo dwellers (34%)
- White homeowners (45%) compared to white renters (34%).

#### Lowest-Tier Items

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

Overall, 48% rated this item as a 10, especially:

- Women (54%) compared to men (42%) and especially women over age 50 (64%) and women with no college degree (63%)
- Asians are very unlikely to do this, with just 14% rating this as a 10
- Latinas (60%) compared to Latinos (37%)
- Single family home dwellers (58%) compared to apartment/condo dwellers (29%)
- White homeowners (56%) compared to white renters (40%).

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

Of those who said they wash their car at home, only 39% rated their willingness to take the car to a carwash as a 10. This included in particular:

- Women (49%) compared to men (28%) and especially women under age 50 (56%) and women with no college degree (57%)
- In the Tijuana River watershed, 62% rated this as a 10, compared to just 27% in the Penasquitos watershed and 18% in the San Dieguito watershed
- Blacks at 61% compared to just 38% of whites
- Latinas at 61% compared to just 34% of Latinos and 24% of white men
- Fifty-two percent of Latinos with no college degree compared to 33% of Latinos with a degree.

## 12. Use barriers or a wet-vac to keep water from going into the street when you are cleaning stucco or concrete

Forty-one percent of homeowners offered a 10 rating for this item, including:

- About 50% of those with no college degree compared to about 34% of those with a college degree
- Latinos at 53% compared to 39% of whites.

#### 13. Wash your car on the lawn rather than on the driveway or street

Only 26% rated this as a 10, including:

- Women at 31% compared to 20% of men, and 35% of women with no college degree
- Among Latinos, 35% compared to 20% among whites, and 44% among Latinas

### H. Barriers to Action

We asked residents to respond to two questions that explore barriers to taking action to stop storm water pollution.

### 1. Reasons to Not Stop Storm Water Pollution

First we asked residents whether each of 7 possible reasons to not do more to help stop storm water pollution applies to them, or not. As shown in Figure 14, the most commonly given reason is simply lack of time. Forty-four percent said this applies to them. A similar figure, 41%, said that they don't know what to do and that they do not go to the beach. A smaller proportion, 35%, say that it is too much hassle and 34% say that stopping storm water pollution is simply not that important to them. Slightly fewer, 32%, say it is too expensive to do a lot of this, and 31% say that what they do is too small to make a difference.

#### Figure 14: Percent Saying Each Reason Applies to Them



#### **Top Barriers**

#### 1. 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 70% in the Tijuana River watershed
- Education: This applies more to those with lower education levels about 60% of those with no college degree compared to about 33% of those with a college degree
- Race/Ethnicity: This applies to 66% of Asians and Latinos compared to just 46% of whites, and 74% of Latinos under age 50.

#### 2. I don't go to the beach (41%)

- Age: This applies much more to seniors (55%)
- Race/Ethnicity: Latinos (52%) are more likely to say this than whites (39%), and especially Latinos with no college degree (56%)

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

- Age: This seems to apply much more to residents under 50 (46%) than to older residents (32%)
- Location: This seems to apply more to those in the San Dieguito River watershed (56%), the Tijuana River watershed (55%), and the San Diego Bay watershed (42%)
- Education: This applies much more to those with no college education (52%)
- Race/Ethnicity: This applies more to Blacks (51%) and Latinos (51%) than to whites (35%), and especially to Latinos under age 50 (56%)
- Own/Rent: This applies more to renters (46%) than to homeowners (37%), and to apartment/condo dwellers (47%) that to single family home dwellers (38%).

#### Secondary Barriers

- 4. It's too much of a hassle to do a lot of this (33%)
  - Gender: men at 40% are more likely to say this applies to them than women at 30%, and especially Latinos (46%) compared to Latinas (24%)
  - Location: Tijuana River watershed residents (60%) are more likely than others to say this applies to them.
- 5. It is not something that is honestly that important to me (34%)
  - Age: This applies much more to seniors (45%) than to others, and especially to older men
  - Race/Ethnicity: This applies to 49% of Blacks, compared to 38% of Latinos and 29% of whites; among Latinos, it applies to 42% of those under 50 compared to 25% of older Latinos.

#### 6. It is too expensive to do a lot of this (32%)

- Location: Tijuana River watershed residents (53%) are more likely than others to say this applies to them
- Education: This applies more to those with no college (37%) than those with a post-graduate degree (20%)
- Race/Ethnicity: This applies to 47% of Blacks, compared to 27% of whites.

#### 7. What I do is too small to make a difference (31%)

- Age: This applies much more to seniors (41%) than to others
- Location: Tijuana River watershed residents (55%) are more likely than others to say this applies to them
- Education: This applies much more to those with no college (45%) than to those with a post-graduate degree (20%)
- Race/Ethnicity: This applies to 51% of Asians, 44% of Latinos, and 41% of Blacks, compared to 26% of whites.

### 2. Barriers to Proper Disposal of Used Motor Oil

We asked the 12% of respondents who change their motor oil at home to react to five possible reasons that they "might not always dispose of used motor oil by recycling it." For each reason, they were asked it is was a major reason, a minor reason, or not something that affects them.

As shown in Figure 15, responses were fairly similar to all five reasons. Between 39% and 34% said each was a major or minor reason for not always recycling. However, we did see that the top item was something that could be addressed: lack of a "suitable container for capturing and transporting oil."



Figure 15: Percent Saying Each Is a Major or Minor Reason They Do Not Always Recycle Used Motor Oil (N = 92)

While the sample size is quite small for this question, we do see some consistent patterns in the response to it:

- Gender: Women, and especially women under 50 were far more likely than men to cite each of these as a reason for not always recycling used motor oil. When it came to not having a suitable container, for example, 72% of women under 50 said this was a major or minor reason. Fifty-five percent of them said they did not know where to go.
- Race/Ethnicity: Latinas were far more likely than Latinos or white of either gender to cite these items as reasons for not always recycling used motor oil. For example, 90% of them said they did not have a suitable container, and the same proportion did not know where to go.

### I. Motivations for Action

We asked residents to respond to ten possible reasons "why people like yourself might take actions like the ones I just described to help prevent storm water pollution." We asked them whether each reason made them *much* more likely or *somewhat* more likely to take action, or if it had no effect on them.

As shown in Figure 16, responses were very strong to all the reasons, from 80% who said that protecting the health of swimmers made them much more likely to take action to prevent storm water pollution, to a low of 60% who said protecting property values made them much more likely to take action.





In examining the responses to these reasons, we see general patterns that apply across most of the items.

- First, we see that women react with more enthusiasm than men to all of the reasons, and especially 50+ women, women with no college degree, and Latinos
- Second, we see that Latinos and especially Latino women and 50+ Latinos react more powerfully than whites to most of the reasons, and much more powerfully than Asians.

We will now look at responses to each of these items individually:

#### Top Tier

- 1. Keeping pollution out of storm drains will prevent disease and protect the health of kids and adults who swim in the ocean where all that pollution ends up (80% much more likely)
  - Gender: 83% of women compared to 77% of men said this made them much more likely to take action to prevent storm water pollution
  - Age: Those under 35 (88%) were especially likely to say this made them much more likely to take action
  - Race/ethnicity: 89% of Latinos compared to 80% of whites, 77% of Blacks, and 80% of Asians said this made them much more likely to take action; this was the clearly the top positive for Asians
  - Own/Rent: 84% of renters compared to 78% of homeowners
- 2. Keeping pollution out of storm drains will help preserve the ocean environment and protect fish, dolphins, and other marine life (78% much more likely)
  - Gender: 83% of women compared to 73% of men said this made them much more likely to take action to prevent storm water pollution
  - Area: 80% in the San Diego Bay watershed and 86% in the Tijuana River watershed

- Education: College-educated men (69%) are less likely than others to react with enthusiasm to this statement
- Race/ethnicity: 87% of Latinos compared to 77% of non-Latinos, including 96% of Latinos over 50.

# 3. By keeping pollution out of our creeks and ocean, we can protect the environment for the next generation to use and enjoy (77% much more likely)

- Gender: 81% of women compared to 73% of men said this made them much more likely to take action to prevent storm water pollution, with men over 50 least responsive to this reason (67%)
- Race/ethnicity: 87% of Blacks and 84% of Latinos compared to 78% of whites.

### 4. Water connects us all. It's something we all have in common, and we all need to protect (76% much more likely)

- Gender: Women over 50 respond with particular enthusiasm to this reason (87%)
- Area: In the Tijuana River watershed, 93% said this makes them much more likely to take action to reduce storm water pollution
- Education: Response is stronger among those with no college degree (about 83%) compared to those with a college degree (about 70%)
- Race/Ethnicity: Latinos (88%) are especially likely to respond to this statement compared to whites under 50 (68%).

#### Second Tier

- 5. Keeping streets and gutters clean of litter and trash makes local neighborhoods safer and better places to live (75% much more likely)
  - Gender: Women over 50 respond with particular enthusiasm to this reason (83%)

- Area: In the Tijuana River watershed, 96% said this makes them much more likely to take action to reduce storm water pollution
- Race/Ethnicity: Latinos (84%) and Blacks (87%) are especially likely to respond to this statement compared to Asians at 63% and white men at 72%.

# 6. Storm drain pollution forces beach warnings and even closures due to high bacteria levels. Keeping storm drains clean is the best way to keep our beaches open (73% much more likely)

- Gender: Among women over 50, 83% said this reason made them much more likely to take action, compared to 68% of men over 50
- Race/Ethnicity: 87% of Latinos compared to 72% of whites.

### 7. A clean San Diego starts at everyone's door. We should all take actions in our daily lives to make a difference (72% much more likely)

- Gender: 75% of women compared to 69% of men, including 86% of women over 50
- Age: 84% of seniors compared to 69% of those under 50 this was the top motivation for seniors
- Education: Response to this reason declined with educational levels, from about 77% of those with no college degree to 66% of those with a college degree
- Race/ethnicity: 80% of Latinos compared to 70% of non-Latinos, including 92% of Latinos over 50.

## 8. Keeping pollution out of storm drains can help keep San Diego a city we can all be proud of (71% much more likely)

• Gender: 74% of women compared to 68% of men, including 82% of women over 50 and 82% of women with no college degree

- Education: Response to this reason declined with educational levels, from about 77% of those with no college degree to 64% of those with a college degree
- Race/ethnicity: 82% of Latinos compared to 69% of non-Latinos, including 89% of Latino renters
- Own/Rent: 82% of renters compared to 65% of homeowners.

#### Lowest Tier

- 9. Storm drains pollute the water in the canyons across the city, where so many kids play (66% much more likely):
  - Gender: 72% of women compared to 60% of men, and just 52% of men with a college degree
  - Race/ethnicity: 78% of Latinos compared to 65% of whites, including 83% of Latinas.

# 10. Reducing storm water pollution helps protect property values across San Diego (60% much more likely):

- Gender: 64% of women compared to 56% of men
- Race/ethnicity: 74% of Latinos compared to 59% of whites and 49% of Asians
- Own/Rent: 82% of renters compared to 65% of homeowners.

### APPENDIX

### QUESTIONNAIRE WITH AGGREGATE RESULTS

February, 2007	San Diego Ci	itywide	N = 800
PROJECT 2706	Storm Water S	Study #1	WTD. AGGREGATE RESULTS
Respondent ID#            Gender of Respondent            1 (Male)         2 (Female)	50% 50	<u>Time Started</u> 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 definitely 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, what city do you currently live in.

San Diego ------ 1 Any other response -----TERMINATE

1. Now I'd like to read you a list of some 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	SW	NOT	NOT AT	DK/
		IMP	IMP	VERY	ALL	NA
[] a.	Broken or deteriorating city water and sewer pipes	77%	18%	3%	1%	2%
[] b.	The quality of public schools	77	18	2	1	2
[] c.	Pollution of San Diego's ocean, bays, and beaches	77	20	2	1	1
[] d.	Traffic congestion	53	37	8	2	1
[] e.	Pollution of San Diego's creeks and streams	65	27	5	1	1
[] f.	Littering	51	38	8	3	1
SPLIT	SAMPLE A (N = 392)					
[] g.	Pollution of storm water in San Diego	61	28	7	1	3
SPLIT	SAMPLE B (N = 408)					
[] h.	Pollution of storm drains in San Diego	72	22	4	2	1
2.	On a scale of 1 to 10, how would you rate the job the	city of San	Diego is o	doing in (R	EAD)? U	se a 1 if
	you think it is doing a poor job, a 10 if you think it is c	loing an exc	ellent job,	or any nu	imber in be	etween.
	(ROTATE)	Ŭ		5		

			EXC	יוע אם	= ^ NI
		FOOR	LAC		
[]	а.	Preventing pollution in storm			
		drains7% 5%8% 11% 22%-12% 12% -7%	2%4% -	11%	5.16
[]	b.	Spending tax dollars efficiently 17 8 13 11 18 10 8 5	13	7	4.24
[]	C.	Preventing pollution of San Diego's			
		ocean, bays, and beaches888132112158	24	7	5.24

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

Single family	56%
Duplex/triplex	3
Townhouse	8
Apartment/Condo	30
(DON'T READ) Other	2
(DON'T READ) DK/NA	0

#2706

#### Goodwin Simon Victoria Research San Diego Study 1

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4. Last year, that is in 2006, did (READ):

		<u>YES</u>	NO	<u>NOT APPL</u>	DK/NA
a.	You ever wash your vehicle at home?	-46%	- 52%	2%	1%
b.	You ever change the oil in your vehicle at home?	-12	- 87	2	0
C.	You have a dog at home?	- 32	- 67	1	0
	-	YES	NO	NOT APPL	DK/NA
d.	You have yard waste or trash from your home or apartment's	3			
	garbage bins blow into the street?	- 11	- 88	0	1
e.	Rinse off paint brushes in the street, or dump water used to				
	clean paint brushes in the street?	1	- 98	0	0
IF	SINGLE FAMILY ON Q.3 ASK: (N = 451)				
f.	You or your gardener use pesticides or weed-killers in your				
	yard or garden?	- 33	- 64	1	3
g.	You do any construction or major landscaping projects				
-	at your home?	-22	- 77	1	0
h.	You hose down the driveway or sidewalk in front of your				
	home	-33	- 66	0	1

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

		NEVER		FREQ	DK M	EAN
[]	a.	People washing or putting dog waste from				
		their sidewalk, yard, or lawn into				
		the street4% 3% 9%4% 3%	5% 1%1% -1%	% 1%2% ·	1%	1.86
[]	b.	People washing their cars on the		0 0	0	4 00
r 1	~	driveway or in the street 21 11 15 10	13 / / /	38	0	4.33
[]	C.	bog waste being ieit on of near the	0 1 6 5	<b>၁</b> 0	0	3 65
٢١	Ь	Siuewaik 7 34 14 12 7 People washing or blowing vard waste	9 4 0 9	20	0	5.05
[]	u.	or litter from their sidewalk or driveway				
		into the street7	8444-	25	1	3 25
[]	e.	People using pesticides and weed-	• • • •	- •		0.20
		killers on their lawns or gardens 47 118 4	8 343-	13	8	2.79
[]	f.	Trash bins left uncovered so that litter				
		is blown onto the street 51 13 10 5	6434-	13	1	2.74
[]	g.	Manure or soil being washed from				
		lawns into the street 65 12 6 2	6 2 2 1	11	2	2.05
[]	h.	Water used to wash stucco or				
		concrete running into the street 53 11 10 5	9 3 1 3	13	1	2.63
[]	١.	Hillside erosion resulting in soil wasning	F 4 0 0	4 0	0	0.00
r 1	;	down the nill 5	5 4 3 3	1 3	2	2.60
[]	J.	into the street or onto the ground 82 6 2 2	2 1 2 2	1 2	0	1 60
٢١	k	Lots of litter in your peigbborhood 46 16 11 5	2 122 8 134-	72 	0	2.88
H	1	People washing paint brushes in the	0	Z <del>-</del>	0	2.00
11	••	street or pouring water used to clean				
		paint brushes into the street 85 6 1	2000000	0 1	1	1.40
6.		As far as you know, do you live in a watershed, or not?				
			YES	NO	<u>DK/N</u> A	<u>\</u>
		Watershed	- 9%	45%	46%	-

#2706	San Diego Study 1	Page 3
7.	How much do you think each of the following contributes to pollution in San Diego's creeks and on A great deal, some, only a little, or not at all?	cean?
	GREAT	DK
[] ;	a. Sewage spills 12%5%	<u>NA</u> 6%

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- [] b. Pollution in neighborhood storm drains------38 ------ 37 ------ 16------5
- 8. Before this call, had you ever heard the term "storm drain" before?

Yes	91%
No	9
(DON'T READ)	DK/NA 0

9. 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	17%
Is not treated	46
(DON'T READ)	DK/NA36

10. In fact, anything that goes into storm drains ends up in local creeks, or goes directly into the ocean, without any filtering or treatment. Motor oil, yard waste, 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 2006, did you see or hear anything about ways that people can prevent pollution of storm water in San Diego?

Yes -----55% No -----42 (DON'T READ) DK/NA -----2

11. And again, in 2006, did you see or hear anything about steps the city of San Diego is doing to prevent pollution of storm water?

Yes ------36% No -----59 (DON'T READ) DK/NA ------5

12. Now, on a scale of 1 to 10, please tell me how interested you would be if you had the opportunity to learn more about [READ]: Use a1 if you would NOT be interested at all, and a 10 if you would be VERY interested. (ROTATE)

		NOT	VERY	DK M	<u>EAN</u>
[]	а	What you can do to help reduce pollution			
		of storm water 13% 4%6% 3% 14% 5% 10% 11%	6% 27% -	2%	6.42
[]	b.	What you can do to help reduce or stop			
		beach closures due to pollution 12 4 4 13 6 119	5 31	2	6.61
[]	C.	What you can do to clean up litter and			
		pollution in your neighborhood 15 4 5 3 15 5 9 11	5 27	2	6.30

#270	Goodwin Simon Victoria F San Diego Study 1	Research		Ра	ae 4
13.	Have you ever heard the slogan Think Blue San Diego?				0-
	Think Blue	<u>YES</u> -46%	<u>NO</u> 52%	<u>DK/NA</u> 1%	<u>.</u>
14.	Now I want to read you a brief list of different things that so drains. After you hear each item, and knowing that it woul likely you are to do each one. Use a 1 if in all honestly you 10 if you definitely would do that item consistently to would between. (ROTATE) (IF NOT APPLY, RECORD AS 99)	ome people do d help prevent probably wou l help prevent	to keep pollution out pollution, please tell ld <u>not</u> do that item co pollution, or any num	of storn me how nsistent ber in	n / ly, a
	NOT DO		DEF DO	DK ME	EAN
[] a	Pick up litter and trash that is in the gutter		404 004 004 0404	4.07	0.00
[] b	<ul> <li>In front of your nome3% 1%</li> <li>Purchase garden and cleaning products that are less polluting, even if they cost</li> </ul>	6% 3% -	-4%-9%6% 61%-	1%	8.38
[] C.	a little more or are harder to find722 Keep your trash and recycling bins covered	8 5	-9 13 7 45	3	7.83
[] d	street00000000	1 0	-2 4 5 84	1	9.52
[] e	oil stains on your driveway or under your car21 Pick up dog waste in front of your home	4 2	5 11 9 61	2	8.73
[] 0	and put it in the trash, even if it is not				
r 1 f	from your own dog 17 3 2 Wash upod paint brushes in the sink	72	-48548	2	7.14
[] .	rather than wash them in the street 7 1 1 1	2 2	-2 4 3 74	5	8.87
ASK [] g	IF SINGLE FAMILY HOUSE ON Q.3 (N = 451) Use barriers or a wet-vac to keep water from going into the street when you			-	
[] h	are cleaning stucco or concrete 13 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	11 4	-58241	7	6.93
	broom instead of hosing it down with water1 1	52	3 15 5 64	1	8 77
[] i.	Fix your sprinklers so they don't wash			-	••••
r 1 ;	soil or manure onto the street6011	4 1	-5 12 5 61	5	8.58
[] J.	lawns or gardens, to keep it out of the				
	street if it is windy or rainy6222	9 3	-5 14 6 49	1	7.90
ASK	ONLY IF YES TO Q4A (N = 366)				
[] K.	vourself3 12 4 2	10 5	7 11 6 39	2	7.01
[] I.	Wash your car on the lawn rather than on			_	
	the driveway or street	6 4	-46526	5	5.03
АЗК [] m	IF TES TO Q.4D (IN = 92) B. Recycle used motor oil by taking it to a				
	collection center 0 0 0 0 0 0	0 4	-05585	0	9.56

#27	06	Goodwin Simon San Dieg	Victoria R o Study 1	esearch				Page 5
<ul> <li>15. I'd like to read you a brief list of reasons that people often give for not doing more to help stop sto water pollution. 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?"</li> </ul>							stop storm ot. (IF	
[] [] [] [] []	a. Id b. Iti c. It's d. It's e. Iw f. Id g. Wi	on't know that much about what to do s not something that is honestly that important too expensive to do a lot of this	to me	S <u>Al</u> 13 16 10 19 10	TR <u>PP</u> 3 % 3 9 3 )	S.W. <u>APP</u> 28% 28 28  26 35 35 21	NOT <u>APP</u> 57% 65 67 45 57	DK <u>NA</u> 3% 2 2 2 2 2
ASł 16.	K IF Y F P so	ES ON Q.4B ONLY ollowing are some reasons that people might r lease tell me if this is a major reason that you i omething that affects you.(N = 92)	iot always night not	dispose of always recy	used i cle mo	motor oil b otor oil, a i	y recycl minor re	ing it. ason, or not
[] [] [] []	a. It's b. I d c. I d d. Th ge e. It's Let	too expensive to recycle your oil	d transpor kes too lo y people	MA <u>R</u> 14 9 ting oil 11 ng to 12 like yourself	JOR <u>EA</u> ) ) ) 2 might	MINOR <u>REA</u> 15% 20 23 23 19 take actic	NOT <u>AFF</u> 67% 65 65 68	DK <u>NA</u> 5% 1 6 1 the ones I
	jus info mo	t described to help prevent storm water pollution prmation makes you MUCH more likely to take re likely to take action, or if it has NO REAL EF	action to FECT or	you hear ead prevent stor you one wa	ch rea m wat ay or t	son, pleas er pollutic he other.	se tell m on, SOM <b>(ROTA</b> T	e if this EWHAT <b>FE)</b> :
. 1		Keeping callution out of storm drains will	MUCH MORE <u>LIK</u>	S.W. MORE <u>LIK</u>	NC EFI	) LE <u>E LIK</u>	SS <u>ELY</u>	DK/ <u>NA</u>
[]	a. b.	revent disease, and protect the health of kids and adults who swim in the ocean where all that pollution ends up Keeping pollution out of storm drains	80%	14%	3%	ő1	%	2%
[]	C.	will help preserve the ocean environment and protect fish, dolphins, and other marine life Storm drains pollute the water in the	1 78	15	3 -	1		2
[]	d.	canyons across the city, where so many kids play Storm drain pollution forces beach warnings and even eleguros due to high bactoria	66	21	7 -	2		4
[]	e.	levels. Keeping storm drains clean is the bes way to keep our beaches open Keeping streets and gutters clean of litter and trash makes local peighborhoods safer and b	st 73 1 etter	19	5 -	1		3
		places to live	75	17	5 -	1		2

		Goodwin Simo	on Victoria R	esearch			
#27	06	San D	iego Study 1				Page (
			MUCH MORE <u>LIK</u>	S.W. MORE <u>LIK</u>	NO <u>EFF</u>	LESS <u>LIKELY</u>	DK/ <u>NA</u>
[]	f.	By keeping pollution out of our creeks and we can protect the environment for the ney generation to use and enjoy	ocean, ‹t 77	17	3	1	2
[]	g.	Water connects us all. It's something we a have in common, and we all need to protect	all ct 76	15	5	1	2
[]	h.	A clean San Diego starts at everyone's do We should all take actions in our daily lives	or. s to	00	_	0	0
[]	i.	Keeping pollution out of storm drains can h	/2 nelp . of 71	20	5	2	2
[]	j.	Reducing storm water pollution helps prote property values across San Diego	ect 60	25	8	3	4
18.	18. Do you own your home, or are you renting or leasing it?       Own						57% 40 3
19.	Du	you consider yoursell to be hispanic of Lati	110 ?				000/
		, , (	res No DON'T REA	<b></b> <b>DK/NA</b> -			23% 74 3
20.	ls	your race White, Black or African-American,	Asian, Nativ	/e American	i, or some	thing else?	
		V E // N ( (	White Black Asian Native Ameri Dther race DON'T REA DON'T REA	ican <b>D)</b> Mixed/co <b>D)</b> REFUSE	ombined		63% 8 6 1 13 4 5

21. 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 127%
HIGH SCHOOL GRADUATE17
SOME COLLEGE, NO DEGREE21
ASSOCIATE DEGREE 9
BACHELOR'S DEGREE/COLLEGE GRAD 27
POST GRADUATE DEGREE/
PROFESSIONAL DEGREE16
REFUSED 3

#2706

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22. What is your age, please? (RECORD IT EXACTLY <u>AND CIRCLE APPROPRIATE CATEGORY BELOW</u>.) 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	-23%
30-39	-20
40-49	-19
50-64	-23
65-74	7
75 or older	5
(DON'T READ) REFUSED	3
· · ·	

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

91902 (San Diego Bay)	0%
91911 (San Diego Bay)	0
91913 (San Diego Bay)	0
91915 (San Diego Bay)	0
91932 (Tijuana River)	0
91942 (San Diego River)	0
91945 (San Diego Bay)	0
91950 (San Diego Bay)	0
91977 (San Diego Bay)	1
92014 (the Penasquitos [pen-ahs-KEY-toe] and	
San Dieguito [dee-A-GEE-toe Rivers)	0
92020 (San Diego River)	0
92025 (San Dieguito River)	0
92027 (San Dieguito River)	0
92029 (San Dieguito River)	0
92037 (Mission Bay)	2
92064 (Penasquitos River)	0
92065 (San Dieguito River)	0
92067 (San Dieguito River)	0
92075 (San Dieguito River)	1
92101 (San Diego Bay)	3
92102 (San Diego Bay)	3
92103 (San Diego Bay/River)	2
92104 (San Diego Bay)	6
92105 (San Diego Bay)	5
92016 (San Diego Bay)	2
92107 (San Diego Bay)	ა ი
92100 (Sali Diego River)	ა ვ
92109 (Mission Bay)	ວ າ
92110 (MISSIOIT Day)	Z 1
92113 (San Diego Ray)	4 5
92114 (San Diego Bay)	J ⊿
92115 (San Diego Bay and San Diego River)	6
92116 (San Diego Bay)	5
92117 (Mission Bay)	6
92118 (San Diego Bay)	ñ
92119 (San Diego River)	1
92120 (San Diego River)	3
92121 (Penasquitos)	ñ
	-

92122 (Mission Bay)1
92123 (San Diego River)3
92124 (San Diego River)2
92126 (Penasquitos)3
92127 (San Dieguito River)1
92128 (the Penasquitos and San Dieguito
Rivers)2
92129 (Penasquitos River)4
92130 (Penasquitos River)3
92131 (Penasquitos River)3
92133 (San Diego Bay)0
92134 (San Diego Bay)0
92135 (San Diego Bay)0
92136 (San Diego Bay)0
92139 (San Diego Bay)2
92140 (San Diego Bay)0
92145 (Mission Bay and San Diego River)0
92152 (San Diego Bay and Tijuana River)0
92173 (Tijuana River)0
92154 (Tijuana River and San Diego Bay)3
Other2
Not sure0
••••••

#2706
-------

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

Name\_\_\_\_\_ Interviewer\_\_\_\_\_

English9	)3%
Spanish	7