AGENDA DATE: August 19, 2008

TO: Mayor and Councilmembers

FROM: Creeks Division, Parks and Recreation Department

SUBJECT: 2008 Creek And Ocean Water Quality Public Opinion Research Survey Results

RECOMMENDATION:

That Council receive a presentation on the 2008 Creek and Ocean Water Quality Public Opinion Research Survey Results.

DISCUSSION:

Background

In April 2002, the Creeks Division conducted 2 public opinion research surveys (1 of residents and 1 of businesses) to provide a snapshot of the community’s knowledge of water pollution sources and provide data for the preparation of a water quality Public Education Plan (Plan). Completed in March 2003, the Plan recommended a broad range of outreach and education strategies including an elementary education program, neighborhood-based outreach, clean water business program, creek signage, and television, radio and print media related to creek and ocean water pollution, among others. Its comprehensive approach focused on increasing community awareness about water quality problems and solutions. The Creeks Division implemented the plan over the last 5 years.

Follow-up Survey

The Plan and the City’s Storm Water Management Program call for a follow-up survey to help determine the level of success of the outreach and education program. Specifically, the 2008 follow-up survey was designed to identify changes in the public’s understanding of water quality issues, gauge the effectiveness of Creeks Division outreach programs and methods, and help refine the course of future outreach activities. As with the 2002 survey, the study area for this project included the City of Santa Barbara and the remainder of the south coast of Santa Barbara County, including Goleta, Isla Vista, Carpinteria, Montecito, and Summerland.

Goodwin Simon Victoria Research (GSVR) conducted residential and business telephone surveys in May and June of this year. A 20-minute residential survey targeted 600 residents on the south coast, of which half were within the City. In order to
achieve a more representative sample of the population, extra efforts were made to reach cell phone users and Spanish-speakers. A 10-minute business sector survey included 300 area businesses. Again, extra efforts were made to target specific business sectors including 40 interviews with respondents who manage or own auto-related businesses and 40 interviews with respondents who manage or own restaurants.

Overall, the survey results indicate positive achievements for the community’s efforts to improve creek and ocean water quality. Some of the key findings of the 2008 survey include:

City residents have an increased understanding of how personal actions can create storm water pollution.
- Proportion who knew runoff from washing cars causes pollution grew from 32% in 2002 to 53% in 2008.
- Proportion who knew dog waste is a serious water quality problem grew from 44% to 63%.

City residents expressed an increased willingness to take action to prevent pollution, and an interest in doing so.
- Proportion who would sweep their driveway rather than washing it down increased from 36% to 42%.
- Proportion who would use non-polluting alternatives to pesticides and fertilizers grew from 37% to 45%.

While the community has made considerable progress in reducing pollution of storm water, additional outreach is needed to increase understanding of how the storm drain system works.
- Proportion who knew storm drain water is not treated before entering the creeks fell from 54% to 42%.
- Proportion who knew storm water and sewage go in separate pipes fell from 56% to 51%.

Paul Goodwin, of GSVR, will provide Council with a presentation on the methodology and results of the 2008 survey including findings, recommended target audiences, and most effective methods of transmitting information. The Executive Summary of Public Opinion Research Survey Results is attached to this staff report. Creeks Division staff, working with the Creeks Advisory Committee Outreach and Education Subcommittee, will use the research results to update the Public Education Plan.

ATTACHMENT: Executive Summary of Public Opinion Research Survey Results
PREPARED BY: Cameron Benson, Creeks Manager
SUBMITTED BY: Nancy L. Rapp, Parks and Recreation Director
APPROVED BY: City Administrator's Office
Findings from
Opinion Research

2008
SANTA BARBARA
STORM WATER STUDY

Executive Summary

Conducted for the
City of Santa Barbara

GOODWIN SIMON VICTORIA RESEARCH

May/June 2008
METHODOLOGY

The City of Santa Barbara asked Goodwin Simon Victoria Research (GSVR) to conduct a telephone survey of residents and businesses to assess awareness of the causes and consequences of storm water pollution and to reduce pollution-causing behaviors. Initial research was conducted in 2002 and the current study tracks changes in behavior and assesses the success of education efforts made since that time.

The research was conducted in two phases: a survey of adult residents, and a survey of businesses. The study area consisted of the city of Santa Barbara, plus the nearby communities of Carpinteria, Summerland, and Goleta.

Residential Study

From May 17 to June 2, 2008, GSVR conducted a telephone survey of 600 adult residents in the study area. This includes 458 interviews drawn using a random-digit-dial sampling methodology, in which a randomly drawn list of all active residential telephone numbers in the study area served as the sample. We also completed 41 interviews using a random sample of wireless telephone numbers of local residents. Finally, we completed 101 extra interviews with Latino residents of the study area drawn from a commercially available list.

Results were combined and weighted for age and ethnicity to reflect expected demographic results among adults in the study region.

It should be noted that there are four differences in the sampling strategy between the 2002 and 2008 surveys.

First, the 2002 survey sample was drawn by intent to have proportionately more residents from the city of Santa Barbara than would happen randomly. Results were then weighted to reflect the actual geographic distribution of adults. In the 2008 survey, the sample was drawn so that the population distribution was random across the study region.

Second, the 2002 survey included a lower proportion of Latino respondents (about 26%, compared to 31% in this 2008 study).

Third, this study employed a listed sample of Latino residents to reach our desired proportion of Latinos, while the 2002 study did not use a listed sample. In general, those records found in listed samples tend to be more affluent and are less likely to be renters or to be transient.

Fourth, in this study 9% of the respondents were reached on wireless telephone numbers. No wireless numbers were contacted in the 2002 survey.

These differences in sampling should be kept in mind when evaluating differences in results between the 2002 and 2008 surveys.

The 2008 study was translated into Spanish and we had bilingual interviewers available. However, only 2% of the interviews were completed in Spanish.

The margin of error for findings from all 600 respondents is about plus or minus 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 4.0% of the actual population proportions.

**Business Study**

The business survey was conducted by telephone between June 3 and June 9, 2008. Interviews were conducted during regular business hours.

We completed a total of 300 interviews with businesses located in the study area. This includes an over-sample of 40 extra interviews with respondents who manage or own restaurants, and an over-sample of 40 extra interviews with respondents who manage or own auto repair businesses. In addition, we completed 5 extra interviews with people who operate mobile businesses.

The business contacts were obtained from commercially available lists of businesses. Restaurant, auto repair, and mobile businesses were identified based on NAICS codes.

We present the findings from the business study in three ways:

- Results from 214 businesses, including restaurant and automotive-related businesses. For these findings, we included results from businesses in the “main sample” (e.g. respondents selected randomly from the list of all businesses in the study area including the normal proportion of restaurants and automotive-related businesses). The margin of error for these findings are about plus or minus 6.6% at a 95% confidence level.

- Results from restaurants only, including those in the main sample and the over-sample. At N = 43, the margin of error for these findings is quite high: about plus or minus 15%.

- Results from automotive-related businesses only, including those in the main sample and those in the over-sample. At N = 59, the margin of error for these findings is about plus or minus 13%.

Given the high margin of error for findings from these two types of businesses, the reader should take caution in applying the survey findings.

Moreover, the number of responses from mobile businesses is generally too small for useful analysis and questions asked only of mobile businesses are not presented in this report.

When contacting businesses, the interviewer asked for “the person in your business who would be responsible for dealing with rules or policies related to pollution prevention regulations.”

Where appropriate, we compare results from this study (with an N size generally of 214) with one conducted in a similar fashion for the city in 2002 with an N size generally of 225. We also compare results, where appropriate, with identical questions from the 2008 residential survey.

As a convention for describing results, we refer to respondents from the business survey as “businesses” “restaurants,” or “auto repair businesses.”
EXECUTIVE SUMMARY

Residential Study Findings

Overview:

The Creek Restoration and Water Quality Improvement Program Public Education Plan developed for the city by O’Rorke, Inc. set out five goals for the city’s education effort to meet. This survey was intended to explore the progress the city has made in reaching four of these five goals, and to provide additional insight into views about storm water pollution causes and solutions.

The first goal was to increase public understanding of storm water pollution causes. The survey shows considerable success in reaching these goals.

- The proportion who knew that runoff from home washing of cars can cause pollution in storm drains increased from 32% to 53%. This exceeded the goal of raising awareness to 42%.
- The proportion who knew that dog waste is a serious problem if it ends up in storm drains increased from 44% to 63%. This exceeded the goal of raising awareness to 54%.
- The proportion who knew that pesticides are a serious problem if they end up in storm drains rose from 75% to 80%. This was an increase that came close to meeting the goal of 85%.

It should be noted that a change in methodology for this study compared to the 2002 study resulted in a sharp increase in the proportion of Latinos represented in the sample. As the survey shows that Latino residents tend to be somewhat less informed on storm water issues compared to whites, we would expect this change in the sample demographics to reduce evidence of gains made by the city’s outreach effort. Thus that the survey shows the program actually exceeded two of its three awareness goals is very impressive.

A second goal was to increase understanding of the storm drain system. Evidence is more mixed of the success of the program in this area.

The proportion who knew that storm drain water is not treated fell from 54% to 42%. However, there was no real increase in the proportion who said incorrectly that the water is treated. Rather, there was a substantial boost in the proportion who were unsure. Much of this change appears to be a result of the different demographics in the 2008 sample.

The proportion who knew that storm water and sewage go in separate pipes fell slightly from 56% to 51%.

The third goal was to increase the percentage of those who express willingness to change behavior to reduce pollution. Again, we see broad gains in reported interest in behavioral change.
The 2008 survey does not have a question that directly matches the specific 2002 question cited in the plan. But, we do see an increase in the proportion who would sweep their driveway instead of washing it down from 36% to 42%. We see an increase from 37% to 45% in the proportion who would use nonpolluting alternatives to pesticides and fertilizers in their yard. We see an increase in the proportion who would pick up litter and trash in front of their homes from 41% to 46%. We see an increase in the proportion who would pick up their dog’s waste from 22% to 31%. Finally, we see an increase in the proportion who would fix their car immediately if they saw oil stains under it from 46% to 56%.

The fourth goal is to increase the percentage who actually make a permanent change in their lifestyle to reduce pollution. The study finds evidence of this both for residents and for local business.

The residential survey found that 42% of those who saw information in the past year about pollution of storm water said they made changes in their lifestyle as a result. This includes taking cars to the carwash instead of home washing, cleaning up trash and litter, using fewer pesticides, and using less water. These are all examples of preventing storm water pollution that were seen in public outreach materials sponsored by the city.

Another criteria in the plan for judging the success of the city in meeting this goal is whether businesses made changes to reduce water pollution. We found that the proportion of restaurants who said they made changes in business practices to reduce storm water pollution rose from 30% to 65%. The proportion of auto repair businesses that made such changes rose from 62% to 71%.

Putting this in perspective, the survey finds that the city has made considerable progress in educating residents about actions they can take to reduce pollution of storm water. There also appears to be an increase in the proportion of residents who are “very interested” in learning more about how they can reduce pollution.

Further, we see very clearly that residents do not believe that actions contributing to storm water pollution are acceptable: 91% say it would bother them to see their neighbors acting in this way, and fully 79% said they would ask their neighbors to stop such behavior. In fact, only 33% say their neighbors wouldn’t care about causing storm water pollution. For comparison, a recent survey we completed in San Diego found that 54% said their neighbors wouldn’t care about causing pollution. Clearly the norms and expected behaviors in Santa Barbara are far different than in San Diego.

We also find widespread awareness of outreach efforts on this topic. Nearly three of four (71%) say they have recently seen information on preventing storm water pollution. This is a sharp increase from 59% in 2002.

Of those who have seen such information, 76% say they have seen something specifically from the city of Santa Barbara on this topic. Eighty-six percent of all respondents say they recall seeing at least one of the city’s five ads or commercials that we mentioned to them. Those that had seen these ads were far more informed about how the storm drain system works.

The survey also finds relatively strong interest in actions such as a rebate program to help people purchase cisterns, rain gutter improvements, and especially in regular curbside household hazardous waste collection.
Finally, the survey shows strong motivation to act, with 63% who say they visited local creeks in the past year or two, and 93% who say they visited a local beach.

**While the survey shows strong progress in interest in changing behavior, we do not see an increase in awareness of how the storm drain system works.** We also see little progress in awareness that individuals are the largest source of pollution of creeks and the ocean.

This would suggest that the city focus in 3 areas in future communications:

- First, expanding the proportion of residents who “make the connection” that the actions they do at home can create – or prevent – pollution of creeks and the beach.

- Second, expanding the proportion of residents who understand that the polluted water that flows into their gutter is not treated. Obviously, these first two goals go hand in hand.

- Third, concentrating on asking residents to make one or two behavioral changes that meet two criteria: that they are important in terms of reducing pollutants and that people are very willing to do it. Examples might include cleaning up litter and reducing the use of pesticides in home gardens.

As was the case in the past, outreach efforts are especially needed in minority communities and among the less educated and less affluent residents. It was encouraging to see that among less affluent and non-white respondents who reported receiving materials on storm water pollution, there were higher proportions who said they would change their lifestyle compared to whites and more affluent respondents.

Finally, the survey suggests two barriers that outreach can address.

- First, we see that lack of time is a major barrier to action to reduce storm water pollution. So outreach should stress that small changes that require little or no time can make a big difference.

- Second, we found that many residents – 36% -- believe that cleaning up storm water pollution is something that “government should take care of.” Helping people understand their role and responsibility both in causing the problem and in solving it will be vitally important. **This can and should be done in a positive way, giving people incentive and positive motivation to alter their behavior.**

**Summary of Specific Question Responses**

**Understanding of the Storm Drain System**

- While there is a solid level of awareness of storm water issues and how the storm water system works, this awareness is far from universal and more education is clearly needed.

  - Just over six in ten (63%) know that water that runs into the gutter on their street ends up flowing into a storm drain. However, over one-third either are unsure (21%) or believe that this water does not end up in storm drains (16%).
• Only half (51%) know it is inaccurate that, in your area, water that is flushed down toilets and water that goes down curbside storm drains all flow into the same underground pipes. Three in ten (29%) believe this statement is true and 22% are uncertain. There has been no change in awareness in this area since 2002.

• Just 42% know that storm drain water is not treated before being discharged into creeks and the ocean. While only 12% believe incorrectly that the water is treated, fully 47% are not sure. Compared to the 2002 survey, we see a decline from 54% in the proportion who said storm water was not treated, and an increase from 31% in the proportion who are not sure. The decline in awareness that the water is not treated may be due to the increase in minority participation in the 2008 survey, as understanding of these issues appears to decrease among non-whites and less affluent residents.

• Six in ten say that it is not true that most pollution of water in storm drains comes from a few big polluters. However, nearly three in ten (29%) consider this statement true and 11% are not certain. This suggests that residents need more education both to increase and solidify the belief that their actions, collectively, have more impact than industrial or other perceived “big polluters.”

• Related to the above finding, 47% say that residents are more responsible for creek and ocean pollution than business, industries, and farms. But 44% believe that business is at least equally responsible for the pollution. This reinforces the need for education on personal accountability for storm water pollution.

Concern About Storm Water Pollution

➢ Residents were presented with a list of items that often end up in storm drains before flowing into creeks or the ocean. The results show that concern about each item has increased since 2002 – including in the three areas where the City established goals to increase awareness of the problem. However, residents underestimate the impact of every day residential run-off on the environment, with low numbers expressing strong concern about the impact of dirt from driveways and sidewalks, leaves and grass clippings, lawn watering, and washing cars. This may reflect a lack of knowledge, not only with how much these items can pollute water, but a lack of knowledge that water that flows down gutters ends up in storm drains and flows out to the ocean and creeks.

Nevertheless, the survey results show increased concern in all areas, including:

• Soapy run-off from when people wash their cars (32% serious concern to 53%, +21%)\(^1\). This proportion surpasses the goal established in 2002 to increase concern in this area from 32% to 42%.

• Trash and litter, such as fast food wrappers (the proportion concerned about this rose from 58% to 78%, +20%).

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\(^1\) The question wording was changed from 2002 when it read, “run-off from when people wash their cars.”
Dog waste (44% to 63%, +19). This proportion surpasses the goal established after the 2002 study to increase concern in this area from 44% to 54%.

Run-off from commercial or retail businesses (53% to 65%, +12%).

Run-off from restaurant activities (47% to 59%, +12).

Motor oil (76% to 87%, +11%).

Dirt from driveways and sidewalks (18% to 26%, +8).

Leaves and grass clippings (14% to 22%, +8).

Run-off from when people water their lawns (23% to 29%, +6%).

Lawn or garden fertilizers and pesticides (75% to 80%, +5%)\(^2\). This falls short of the goal established in 2002 to increase concern in this area from 75% to 85%. However, the change in question wording may account for the level of concern falling short.

Paint (70% to 75%, +5%).

Despite a greater concern about a number of storm water pollutants, residents indicate a modest decline in urgency of concern about water pollution overall.

In 2002, 31% believed pollution of water at Santa Barbara beaches had increased in the last few years, with 19% saying there was much more pollution. At that time, just six percent believed there was less pollution, with 28% saying it was the same and 15% unsure.

Today, a similar number believe pollution has increased, but a slightly lower 13% think there is “much more” pollution. The proportion who believe there is less pollution has doubled, from six percent to 14% (43% believe it has stayed the same and 14% are unsure).

Reflecting their concern about environmental pollution, the results show that residents would not tolerate their neighbors causing pollution of water in creeks or the ocean. Clearly, social norms in the Santa Barbara area are such that polluting behavior is not acceptable. In fact, only a third (32%) believe that their neighbors don’t care about such pollution.

Nine in ten (91%) agree that it would really bother me if I saw a neighbor doing something that causes pollution of water in creeks or the ocean.

Eight in ten (79%) agree that if I saw my neighbor doing something that caused pollution of water in creeks or the ocean, I would ask them to stop it.

\(^2\) The question wording was changed from 2002 when it read, “lawn and garden chemicals and pesticides.”
• Nearly six in ten (58%) disagree that *most of my neighbors probably wouldn’t care if something they normally do was causing pollution of storm drain water*. However, one-third (32%) agree with this statement (9% are uncertain).

**Communications About Storm Water Pollution**

- **Overall, 71%** say they have seen or heard something in the last few years about ways to prevent pollution of water that flows into storm drains or creeks. This is up significantly from the 59% who gave this response in 2002.³

- **Those who have received communications are more likely to be familiar with the storm water system and its issues.** Specifically, they are more likely:
  
  - to know that water that flows into street gutters goes into storm drains (66% of those who received communications to 55% of those who did not);
  
  - to know that storm water is not treated (49% to 26%);
  
  - to know they live in a watershed (26% to 13%);
  
  - to believe beach water pollution has increased (38% to 29%);
  
  - to consider it false that most pollution is caused by a few big polluters (67% to 45%);
  
  - to know that sewage and storm drain water do not flow into the same pipes (58% to 32%). In fact, those who have not received communications are twice as likely to believe both end up in the same pipes (46% to 21%);
  
  - to believe industry, business, and farms are a bigger source of pollution than residents (37% to 28%).

- **Three out of four** (76%) of those who have received communications recall that what they heard came from the City of Santa Barbara. Furthermore, 86% of respondents could recall seeing at least one of the five English-language ads about which they were asked, including the television ads, newspaper ads or posters, and brochures (14% saw none of the ads).

  - One-quarter had received just one of these six communications. Another one-quarter received two, 22% received three, and 16% received four or five communications.

**Willingness to Change Behavior, Take Part in Programs, or Learn More to Reduce Pollution**

- **Information has a significant impact on behavior.** Just over four in ten (42%) residents say they have made changes in their behavior, lifestyle, or other actions as a direct result of seeing information in the past year or two about what polluted water in storm drains does to local creeks or the ocean. Interestingly, while non-white, less educated, and

³ The question wording changed slightly from 2002 to 2008.
less affluent residents are somewhat less likely to have received information, residents from these groups who have received the information are more likely than white, more educated, and more affluent residents to say they have made behavior changes as a result of what they learned.

- Residents name a variety of changes they have made as a result of the information they received about polluted storm water, including taking their car to a car wash rather than washing it at home (22%), picking up trash and cleaning the gutters and streets (11%), not using fertilizers, pesticides, or chemicals (9%), not letting trash or leaves go down the gutters or drains (9%), not pouring oil or dirty water into creeks (9%), using less water (8%), washing their car on their lawn (7%) and using less soap (5%).

- Nearly eight in ten (79%) residents are interested in learning more about what they can do to reduce pollution of creeks and beaches. Forty-four percent (44%) are very interested in doing so, a proportion that has increased from 31% in 2002.

- Most residents are willing to take a number of actions (if they are not already doing so or if the item is applicable to them) to keep pollution out of storm drains to protect local creeks and the ocean.
  - The actions of greatest interest to residents include: fixing their car if they see oil stains under it, picking up litter and trash in the gutter in front of their home, using nonpolluting alternatives to pesticides, and participating in a creek restoration project at a local park. There is considerably less interest in picking up other people’s dog waste.
  - There is also some interest among homeowners in directing the downspout from their rain gutters to water their lawn, with 24% who said they would “definitely” do this.

- Residents respond positively to different types of incentives for homeowners to help reduce storm water pollution on their property.
  - Nearly nine in ten (87%) are likely to take part in regular curbside hazardous waste collection service. Seven in ten (70%) are likely to participate in a free program where an expert hired by the city helps you plan improvements to reduce pollution of water flowing from your property.
  - Two out of three (67%) would participate in a rebate program to help pay for rain gutter improvements to direct rainwater to your yard instead of the street.
  - An only slightly lower 63% would participate in a rebate program to help you purchase a rain barrel or cistern to capture rain falling on your roof. We see in this finding that programs that make certain actions less intimidating or costly will be effective in inspiring participation.

- The biggest impediment to doing more to reduce storm drain pollution is time. Half (50%) of the respondents admit that they would do more, but they “just don’t have the time.”
A lack of knowledge is another serious impediment, with just under four in ten (38%) saying they do not do more because they do not know what they could do.

Thirty-six percent say that solving the problem is something that “government should do.”

Another quarter (25%) say that they do not do more to reduce storm drain pollution because it is too expensive.

Therefore, communications must clearly educate residents that they can make big improvements without any a burden in terms of cost and time by just changing everyday habits.

**Certified Clean Water Businesses**

- The vast majority of residents (86%) have not seen any restaurants, repair shops, or other businesses in Santa Barbara with a sign showing they were a Certified Clean Water Business. However, nearly two out of three residents (65%) say they would be more likely to visit a business officially certified by the city as a Clean Water Business.

**Use of Beaches and Creeks**

- Santa Barbara residents are water enthusiasts and, therefore, should be more receptive to communications if they effectively reach them.

  - As in 2002, high proportions of residents say they have visited a local creek in the area in the past two years, with 63% giving this response (compared to 66% in 2002). Likelihood of visiting a creek is higher among affluent residents, white residents, and homeowners. Those between the ages of 30 and 64 are more likely to visited a creek than those who are older and younger.

  - Nearly all residents (93%) have visited a local beach in the last year or two (93%) – with high proportions of all subgroups giving this response. The response in 2002 was 86%.

**Results Among Subgroups**

- There is a trend of higher socio-economic groups having more knowledge of storm water issues, in particular white residents, those more educated, and the more affluent. While there is little difference by gender overall, men ages 50 or older express more knowledge as well. These groups are more likely to know that storm water is not treated, that they live in a watershed, that storm water and sewage do not flow into the same pipes, and that most pollution is not caused by just a few big polluters. In most categories, non-white residents are less informed, including fewer non-white residents knowing that water that runs down the gutter ends up flowing into a storm drain. We also see that these groups are less
likely to have received information about ways to prevent pollution of water that flows into storm drains or creeks.

- **Despite less information, the survey also reveals that lower socio-economic groups are generally more likely to believe pollution of Santa Barbara’s ocean waters has increased.** While 47% of Latino residents and 43% of non-white residents generally believe there is more pollution now of Santa Barbara beach water than a few years ago, a lower 24% of white residents feel this way. This perception is also greater with those less educated, with 48% of those with a high school education or less giving this response compared to 26% of post-graduates. Residents earning less than $50,000 a year in household income are more likely to feel there is more water pollution than those more affluent as well (39% to 26%).

- Non-white, less educated, and less affluent residents are also more likely to say they made changes in their behavior, lifestyle, or other actions as a result of information they received about storm water pollution compared to white and more educated and affluent residents. For example, while 55% of Latino residents and 56% of non-white residents gave this response, a lower 34% of white residents did so.

**Business Study Findings:**

- **We find a level of understanding of storm drain system among businesses similar to that of residents.**

  - Business respondents were about as likely as residents to know that water in storm drains is not treated (48% for businesses compared to 42% of residents). We did see a decline in the proportion who correctly answered this question compared to the results of the 2002 business survey, in which 64% said that storm water is not treated. However, this might well be the results of chance differences in the type of business we reached given the small sample size for this study (for example, the mean number of employees per business among respondents was much lower this year compared to 2002, meaning we had many more small businesses this time) and many other possible variations in who responds to a survey like this.

  - Like residential respondents, business respondents were more likely to say that residents were a greater source of ocean and creek pollution than business. One in four (25%) said that business was a greater source of pollution, while 50% said it was local residents.

- **Few businesses believe they release water or materials into storm drains, and we find an increase in the proportion that are taking action to prevent it.**

  - Among restaurants, 16% say their business practices result in water or other materials going into the street and gutters. The comparable figure for auto repair businesses is 12%, and for all other businesses it is 4%. These figures are very similar to what was found in 2002.
Among those that did admit releasing such materials, one in four said they do not in fact cause any polluted water to enter storm drains. While this is a small number of businesses overall (only about 1% to 2% of all businesses), it does suggest the possibility of a disconnect between actions and the recognition of consequences among potential polluters.

Among restaurants, 60% say they are taking action to prevent storm water pollution. Among auto repair businesses, that figure is 71%. (The number of other businesses qualifying for this question is too small for analysis). This compares favorably to the figures found in 2002: 30% of restaurants and 62% of auto repair businesses. This suggests a significant increase in the number of such businesses who are trying to prevent pollution.

- 25% to 35% of restaurants or auto repair businesses report outdoor use of water for cleaning. Nearly half the auto repair businesses report oil/fuel leaks from vehicles. Nearly three of four polluters say they are not sure how to prevent it.

- About a third of restaurants and auto repair businesses report hosing down a sidewalk or street and using water for outdoor cleaning, and about one in four report using soaps or cleaning materials outdoors. Fewer report overflowing trash bins, washing of mats outside (15% of restaurants), moving of dirt, or outdoor use of chemicals or pesticides. However, 44% of auto repair businesses report fuel or oil leaks from vehicles.

- A follow up question found that 55% of restaurants say they have the equipment needed to wash mats indoors.

- Of those who do say that their business releases water or other materials into the streets, 68% say they are already doing everything possible to prevent polluted water from entering the storm drains. However, 74% say they are not sure what to do to prevent this. So clearly there is at least some openness among such businesses to learning more.

- Businesses most affected by storm water regulations strongly support them.

- Among restaurants, 84% approve of current regulations affecting what goes into storm drains. Among auto repair businesses, that figure is 63%. Among other businesses, the figure is 45% with 38% who are not sure.

- Nearly 80% of restaurants (79%) and 54% of auto repair businesses, along with 77% of all other businesses, support stronger enforcement of existing storm water regulations.

- Most businesses do not report receiving information from city on storm water pollution prevention.
Twenty-three percent of restaurants, 32% of auto repair businesses, and 11% of all other businesses say they have received materials from the city on how to reduce pollution of creeks and the ocean. This proportion was similar among restaurants and auto repair businesses in the 2002 study. Large businesses were more likely than smaller ones to report receiving such materials. About one in four businesses that have received such materials report still having them.

Of those who received the materials, 41% say their company made changes to their business “policy or practices as a result of reading those materials.” That figure was 26% in 2002. This 2008 figure includes 60% of restaurants and 47% of auto repair businesses, plus 38% of other businesses.

Very high awareness of auto and restaurant regulations.

For auto repair businesses, 95% were aware that you cannot wash pavement if the water would go in the storm drain, and 93% were aware that you can’t wash cars and have the water go into storm drains.

For restaurants, 80% were aware that you can’t wash sidewalks if the water goes in the storm drains, 73% knew it was illegal to wash mats outside, and 70% knew it was illegal to wash tables or floors outside.

Strong reactions to potential reasons and motivations to stop polluting storm drains, including city grant program.

Restaurants, mobile businesses, auto repair businesses, and all other businesses that say they release water into storm drains were read a series of statements about why they should take action to stop such activities. The most important statements (with 70% or more who said it the statement was very important in encouraging them to do more to stop allowing materials into storm drains) were that such actions would prevent creek and ocean pollution that creates a “major health hazard,” that such actions might save them money and increase profits, and that such actions might attract more customers.

We also found 71% who said it would be very important in encouraging them to do more to stop such pollution if there was a grant program from the city to help pay for pollution prevention equipment. About 60% said it would be very important if there were “substantial fines” for violators and if the city paid for ads telling customers they are a “clean water business.” About 50% said it would be very important to them to get training from the city on how to prevent storm water pollution.

High demand for Spanish-language materials
• Nearly two of three businesses, including 70% of restaurants, said they wanted materials on this topic to be in Spanish as well as English.

➢ Limited awareness of Clean Business Program

• Finally, 17% of all businesses and 31% of auto repair businesses were aware of the Certified Clean Business Program.