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## **EXECUTIVE SUMMARY**

The Bay Area Stormwater Management Agencies Association (BASMAA) retained the services of Panagraph, Inc. in November of 2002 to assist the Regional Advertising Committee in developing a public outreach effort to promote watershed awareness and change patterns or behavior that adversely impact Bay Area watersheds. The goal of this element of the research was to examine the level of awareness, perceptions and attitudes of twenty-one key community leaders about important storm water quality management and watershed issues.

The focused interviews were conducted to qualitatively evaluate how community leaders perceive and relate to environmental issues associated with storm water and the watershed. From qualitative research, insight is gained as to why the community feels and acts as it does and how to motivate changes. Focused interviews also provide the opportunity to establish relationships of trust with key leaders, to understand how they see their constituency, identify existing resources, and lay groundwork for future cooperative efforts with BASMAA. This research process provided information about the following issues:

- Awareness of stormwater management
- Awareness of storm drains and the storm drain system
- Perceptions of the seriousness and impacts of pollution
- Understanding of major contributors to water pollution
- Understanding of perceived health of the watershed
- Watershed understanding, specifically what is it
- Level of support regarding interagency collaboration

## **OVERALL SIGNIFICANT FINDINGS**

Through the focused interview process, several significant findings were identified. They are:

### **Top Issues**

1. Transportation followed by growth and urban sprawl were perceived to be the top issues the Bay Area is facing today.
2. The vast majority of the respondents (86%) understood the link between air and water pollution

**Stormwater**

3. Most interviewees (82%) understood that stormwater goes to a body of water whether it was a creek, the Delta or the Bay.
4. Half of the respondents stated that stormwater was a link to environmental quality.
5. The vast majority of the respondents felt the people in their organization understood how the storm drain system works.

**Water Pollution**

6. Almost all (90%) of those interviewed had heard of water pollution problems in the Bay Area.
7. Most respondents think the community does not understand the seriousness of water pollution.
8. The top noted principal sources of water pollution were residents, cars/oil and yard care products.
9. Many respondents thought stormwater was a source of water pollution in their area, however, the degree of pollution was unclear and sources of pollution varied.
10. The majority (86%) of the respondents acknowledged that stormwater pollution was a risk to the Bay Area environment.

**Watershed**

11. Only one third of the respondents viewed their watershed in poor condition. The majority felt it was in "pretty good" shape.
12. The majority of the respondents felt it was everyone's responsibility to protect the watersheds.
13. Those interviewed that the way to protect our watersheds is to educate both the general public and children in school.
14. Participants felt that the best way to communicate watershed issues is by beginning with the concept that we all live in a watershed and we must protect it.

**Educating the Community**

15. Multicultural mixed media campaigns were viewed as the best way to educate the community.

**Interagency Collaboration**

16. An overwhelming majority of respondents felt collaboration with other agencies was key to educating the Bay Area on protecting its watersheds.
17. The economic impact of sharing resources and having a consistent message was important to the respondents.

## **BUSINESS SIGNIFICANT FINDINGS**

In addition to studying stakeholder responses as a whole, perceptions and views of eight business community participants were separated out and compared to agency and community organization responses. Overall, the answers were consistent with a few exceptions. Appendix D has a list of all business responses. Below are significant findings that focus on business responses that differed from the overall findings.

1. Business respondents viewed the economy and transportation as the Bay Area top issues. These respondents also did not mention water pollution and had only a single mention of the environment, and growth and urban sprawl.
2. The business respondents were more likely to state that taxes were the source of funding for stormwater management financing.
3. The majority of business respondents linked stormwater to environmental quality.
4. When asked they had heard about the presence of water pollution problems in the Bay Area, these stakeholders were more likely to state media sources such as television and newspaper.
5. Business respondents recognize automobiles, residents and runoff from streets as principal sources of water pollution.
6. When asked if stormwater runoff is a major source of water pollution in their community, business respondents were more likely to answer “no.”
7. When asked whose responsibility is it to protect the health of the watershed, half of the business respondents said everybody and the other half named government and municipalities.

## **BACKGROUND**

### **INTRODUCTION**

The goal of this element of the research was to examine the level of awareness, perceptions and attitudes of key community leaders about important storm water quality management and watershed issues. A significant part of this effort is to gain insight regarding how to change patterns of behavior that adversely impact Bay Area watersheds.

Conducted in November-December 2002 for the Bay Area Stormwater Management Agencies Association (BASMAA), this study was designed and implemented to help guide the new regional Advertising Campaign. Funding for this effort is provided by the Alameda Countywide Clean Water Program, Contra Costa Clean Water Program, Fairfield-Suisun Urban Runoff Management Program, Marin County Stormwater Pollution Prevention Program, San Mateo Countywide Stormwater Pollution Prevention Program and the Vallejo Sanitation and Flood Control District.

The focused interviews were conducted with key community leaders in the Bay Area to qualitatively evaluate how they perceive and relate to environmental issues associated with storm water and the watershed.

The main objectives of the interviews were the following:

1. Get advice on core messages related to the connection between individual behaviors, stormwater quality and watersheds;
2. Understand the attitudes and perceptions of Bay Area residents about their watersheds, water quality and the environment;
3. Solicit input on effective tools and campaign approaches;
4. Identify community-based groups and public/private partnerships where BASMAA's public outreach activities can be communicated;
5. Gain insight into geographical differences in attitudes and perceptions about watershed related issues, stormwater quality issues and resources.

From qualitative research, insight is gained as to why the community feels and acts as it does and how to motivate changes. This type of assessment focuses on the "whys" of community attitudes and behaviors, while quantitative research focuses on the "whats." Focused interviews also provide the

opportunity to establish relationships of trust with key leaders, to understand how they see their constituency, identify existing resources, and lay groundwork for future cooperative efforts with BASMAA.

## **METHODOLOGY**

The stakeholders selected for the focused interviews represented a cross section of stakeholders and community groups in the Bay Area. They were key leaders of their organizations and in positions to reflect the attitudes and concerns of the people in their organizations and communities.

A comprehensive questionnaire was developed with the assistance of BASMAA to assure questions were well phrased and effective in soliciting the appropriate responses. The questionnaire was open-ended in that it allowed the respondents to comment about those issues that they considered important.

A complete spreadsheet of the stakeholders interviewed is contained in Appendix A. A copy of the questionnaire that was utilized in the focused interviews is found in Appendix B. The full range of responses can be found in Appendix C. The "Thank you" letter sent to all stakeholders is in Appendix D.

Those interviewed were:

- Representatives of a cross section of environmental groups, service organizations, and businesses;
- "Key leaders" of their organizations in positions to reflect the attitudes and concerns; and
- Able to "open doors" of community awareness, opinion and support for storm water quality management programs.

**SIGNIFICANT FINDINGS**

The following portion of the report presents a discussion of the significant findings of the focused interviews. It includes actual statements from respondents in the form of “quotes.” These representative responses are provided to help the reader gain a better sense of respondents’ attitudes and perceptions.

**Top Issues In Bay Area**

Community leaders that we spoke with perceive transportation, growth/urban sprawl and the economy as the top issues in the Bay Area today. Housing and cost of living, were also mentioned and relate directly to the top issues that were listed. Additionally, crime, water allocation and political leadership were mentioned. Below is a chart showing the breakdown.

**Chart 1: Bay Area Top Issues**

4	Water Supply	5	Water pollution
8	Economy	4	Air pollution
10	Growth/Urban sprawl	15	Transportation
2	Security	7	Environment
10	Other		

**Link Between Air Pollution and Water Pollution**

When respondents were asked if there is a link between air and water pollution, nineteen responded positively. The respondents noted that what goes up, or is in the air, must come down and ends up in the water, typically through rain. Smog, diesel smoke and mercury were pollutants mentioned. Others described that air is a conveyance factor and noted that pollutants are getting into creeks. Those that stated “no” gave no explanation.

*“No. I don’t see a direct link.”*

*“Yes. Whatever goes up comes down and will get into the water.”*

*“Yes. When it rains whatever is through the air gets into the waterways or it settles on the streets and washes into the water.”*

**Knowledge of Stormwater Management**

**Who is responsible for it?**

A majority of the respondents stated that local government/municipalities such as cities, counties, districts or agencies are responsible for stormwater management. Thirty-five percent (35%) mentioned the Regional Water Quality Control Board. Three were unable to answer this question. One respondent who was unable to answer was aware that tighter regulations coming soon were for business.

**How is stormwater collected and where does it end up?**

Nearly everyone interviewed had an understanding of how stormwater is collected and where it ends up. Eleven respondents specifically mentioned that the water was conveyed either through a storm drain system or a culvert. Eighteen (18) stakeholders understood that the water goes directly to a body of water whether it was a creek, Delta or Bay. One mentioned the water goes to the city sewer system and another mentioned the water was treated.

*“It goes down creeks and city sewer systems and ends up in the Bay.”*

*“Storm rain ends up in marshes and creeks and then goes into the Bay.”*

*“It falls on the ground, goes to the storm drain, creeks, wetlands and then to the Bay.”*

*“Most is not collected and runs directly to the Bay without being treated.”*

**How is stormwater management financed?**

When asked how stormwater management was financed, most respondents were not sure and made an educated guess. Below is a summary of all answers given by respondents. Multiple replies were noted.

**Chart 2: Stormwater Management Financing**

Fees	6
Taxes	6
General Fund	4
Government Agencies	2
Varies by community	2
Building/Development permits	1
Permits	2
Don't know	5

### **The Statement Which Best Describes Stormwater**

When respondents were asked which statement best describes stormwater in their region, eleven (11) respondents stated it was a link to environmental quality and seven stated it was a top ten priority. One respondent said it was a problem needing a solution and one said it was a resource being well managed. One respondent chose not to answer the question.

### **Presence of Water Pollution Problems in the Region**

Ninety percent (90%) of those interviewed had heard of water pollution problems in the Bay Area. When respondents were asked what they have heard, a variety of answers were received. The most frequent responses related to the presence of pesticides, oil, MTBE, and mercury. It was mentioned multiple times that residents have been warned not to eat fish from the Bay. Pollution caused by the ag industries use of pesticides and herbicides and dairy farms were of concern to respondents. Other issues mentioned included the homeless leaving trash near the water as well as pollution related to the presence of military bases. One respondent stated that he has lived in the area for over two decades and has never heard about any water pollution at all.

Respondents reported hearing about pollution from a variety of sources. Some respondents are highly involved with water and other environmental issues and receive the information as it relates to their work. Others have heard stories on the news, read it in newspapers and/or saw something on television. Others couldn't identify a source but know the "discussions are out there" in the public.

*"Oil, pesticides, fish and mercury."*

*"It's a problem affecting water resources like creeks and the Bay. There is a combination of conveyances but it starts with what goes on and the way we live and work. Runoff, air, municipal and industrial sewer discharges [all affect it]."*

*"The biggest issue is dumping oil, garbage and leaves into creeks and streets. People don't take care of cars it's an economic problem."*

*"I have lived here for 26 years don't recall hearing or seeing anything on pollution. We don't have a problem."*

*"You can't eat fish and you shouldn't swim in the Delta."*

**Perceived Seriousness of Water Pollution**

Most respondents think the community does not understand the seriousness of water pollution. These respondents related that their communities don't make a connection between their actions (i.e....litter, overuse of chemicals) and the environment. Others said that people care but they don't do anything about it. Overall, stakeholders think the public doesn't understand how the system works, therefore they don't understand how individual behaviors at work or home cause water pollution problems.

Interestingly, it was noted that children are aware of what pollutes the water through school education. Additionally, the general public knows not to pour directly into storm drains and learned this through public education.

One respondent didn't think there was a serious water pollution problem at all and that he had seen no evidence to prove it. The point was made that it is difficult for the public to understand how parts per billion or trillion affects the community negatively.

*"No! Look at how we see more trash everywhere. If people cared they wouldn't do this!"*

*"I don't see it as serious. I define seriousness as health related and I see no evidence. All we hear about is parts per billion and trillion."*

*"People care but they don't understand that their everyday actions make a difference. Like their use of pesticides, throwing out cigarettes, etc."*

*"No, I have seen neighbors put things down storm drains when they shouldn't. Our kids are aware of what pollutes and most of the public understand not to directly dump into drains, but that's it."*

**Principal Sources of Water Pollution**

Most respondents noted the principal sources of water pollution were residents, cars and yard care products. Interestingly, only one respondent stated manufacturing and/or refineries as principal sources. All responses are in the table below.

**Chart 3: Water Pollution Sources**

Residents/Individuals	8
Cars/oil	7
Yard care products/chemicals	7
Urban Runoff	4
Mercury mines	2
Other: Litter, Sediment, sewage, manufacturing/refineries	6

### **Stormwater - A Water Pollution Source**

Of the majority who consider stormwater runoff to be a major source of water pollution in their community, there wasn't a consistent theme among answers. Comments included the impacts of urbanization, application of chemicals to the ground and lack of regulations for residential pollution prevention. Others noted that there were drinking water and runoff issues.

Of those who answered no, they either stated that their area was not polluted or that their city's system worked so well they didn't have to worry about it.

*"No. Both places where I have lived the storm drains have been lined with concrete so it just goes into the Bay."*

*"Yes, maybe in October when there is the first flush."*

*"Yes. It carries and washes pollutants in the street and into the river."*

*"No. Our systems here watching for it are great. We have good recycling and HHW collection!"*

*"Yes, because of articles in the newspapers I know it's serious. A lot of people are not educated about the fact that one gallon of oil makes a lot of pollution!"*

### **Stormwater - A Risk to the Bay Area Environment**

Of the respondents, only one thought runoff wasn't a risk due to healthy crabs in the Bay and one did not know. The remaining nineteen (19) respondents were split on the amount of risk but acknowledged that there was a problem. Those who answered "yes," recognized the contamination in the Bay and other water bodies and linked it to residents and accumulation of toxins. Strong feelings were evident in those that answered this question. Words such as "ruined", "persistent" and "can't" were used to describe the degradation of water resources.

Those that felt stormwater was somewhat of a risk acknowledged the presence of pollution issues but don't consider them "major." These respondents see pollution as a risk, but do not know to what degree in the long run. Some feel that toxins are not a major issue because water is diluted, but recognize the contamination of local creeks and that it damages wildlife.

*"Yes, because it's more the way urbanization causes changes in timing in the runoff that affects the location of creeks".*

*"Yes, it has already made the fish in the Bay so you can't eat them any more. All our water goes to the Bay."*

*"It's not a major risk. It is a small risk because it [the water] is diluted."*

### **Understanding of the Storm Drain System**

Eighty percent ( 80%) of those interviewed felt the people in their organization understood how the storm drain system works. About half of the respondents (10) were not a member agency of BASMAA. Some respondents went into further detail saying their organization understood the system but the general public did not. Others responded that they were generally aware of all water issues.

### **Watershed – Top of Mind**

Respondents were asked, when you think about the watershed you live what's the first thing that comes to mind? To follow is an example of the types of "top of mind," creative thoughts respondents had about their watershed.

*"Trees and habitats."*

*"A little creek. Ducks."*

*"Where rainfall runoff flows."*

*"The hills around us."*

*"Urban growth."*

*"Creeks, environments and habitats, shopping carts, debris and intentional disposal."*

*"A system of environment and people mixed together."*

*"It comes alive when it rains. Water rushing everywhere, coming down and meeting at a central point."*

*"Protection."*

*"Just because we don't have a problem doesn't mean we shouldn't care about what happens elsewhere."*

### **Perceived Health of the Watershed**

Of the respondents interviewed, only a third felt their watershed was in poor condition. They felt the pollution was caused mainly by urbanization and industrial pollution. Concerned, these respondents feared it would continue to degrade. The overall feeling from the majority of respondents was that their watershed was in "pretty good" shape. Several noted that the health of the watershed worsens as one moves downstream. Another said that he lived in one of the healthiest watersheds in the Bay Area. Some

respondents thought monitoring would be helpful so their watershed wouldn't get worse. Essentially, there wasn't a sense of urgency to the health of the watershed.

*"Overall it's in good shape. We have quite a bit of open space that gives us a buffer. It reduces the specific impact."*

*"Impaired. It's mainly due to the amount of people that live here and it's intermingled with urban area of Vallejo."*

*"Fair. I think people aren't aware of the ramifications of their actions. They don't know about how litter and disposals of toxins can get into water supply."*

*"There is an absence of problems here."*

### **Responsibility of Protecting the Watershed**

Seventy-one percent (71%) of the respondents said that it was everyone's responsibility to protect the watersheds. They noted that we all affect the watershed so it's our responsibility to protect it. One respondent didn't know. The remaining respondents felt the government agencies and the Regional Water Quality Control Board were responsible. Several respondents stated that everyone needs to protect it but ultimately the agencies are responsible.

*"Everyone. It is not possible for a single entity to solve the issue."*

*"Everyone that lives and works here."*

*"It's a shared responsibility of different agencies and private landowners. No one has overall authority."*

*"We all are: everybody, everyday."*

### **Addressing Problems and Protecting Watersheds**

Respondents stated that the way to protect our watersheds is to educate both the public at large and children in school settings. By increasing public awareness through education, more can be done to protect water resources for today and in the future. Many respondents recognized many of the avid efforts and suggested that continuing those efforts will help. Respondents suggested that the Bay Area needed to think globally about the issue not just communicate and act on a city-to-city basis. They understood that many watersheds overlap. One respondent said it nicely "Think globally-act locally."

Specific actions were mentioned such as using pesticides and fertilizers less. Stakeholders suggested education to help individuals learn what the pollution causing activities are and then work as

individuals, taking charge of change for the better. Some respondents suggested fines for those who pollute the watershed. They said this would draw attention to the seriousness of the problem.

*"We need to look at our own actions. Look at how we affect our watersheds, and then change our activities. Pack it in, pack it out. Tread lightly."*

*"Think about the watershed not just the jurisdiction."*

*"People aren't aware that those actions cause pollution. Raise awareness issues."*

*"Educate people so they are made aware that their actions will directly affect water quality and the Bay and ocean."*

### **Watershed Education and Communication**

Respondents felt the best way to communicate watershed issues to the public is by starting with the basics. Begin with the concept, "we all live in a watershed. We all must protect the health of our watershed." This can be done through drawings, pictures, billboards, television and public service announcements. Important to this effort is to assume it is multilingual and culturally appropriate.

Suggestions also included the following:

*"Work with Chambers of Commerce to educate professionals and businesses."*

*"Teach children in the schools so they have life long good habits."*

*"Be involved with the community by going to events where the residents will be such as Cinco De Mayo or other cultural celebrations."*

*"Connect with homeowners by giving them information in their welcome package."*

Most respondents summarized their suggestions by restating the importance of the concept, "we all live in a watershed." They suggested that we must feel like we are a part of it. Here are some of the their suggestions:

*"Through drawings, pictures, photos. We all live in a watershed."*

*"First we need to reach those who haven't heard our message. We also need a multilingual (Spanish) campaign and connect with homeowners (like those going into the Home Depot)."*

*"Get the local media to cover the issue. Do public outreach for kids. Educate them young. Also use print media."*

*"Connect everyday actions that are polluting behaviors to flowing water into the creek. Make a lasting cyclical message that expands off of a watershed. Communicate through schools, billboards and newspapers."*

### **Educating the Community On Watershed Issues and Pollution Prevention Practices**

Respondents were asked how to communicate and educate the Bay Area's communities on watershed issues and pollution prevention practices. Multicultural, mixed media campaigns including television, radio, billboards or newspaper, were recommended choices by these stakeholders. Respondents mentioned including, as a major part of the message, the cooperative effort among agencies. They said that in this time of recession, residents would appreciate the sharing of resources and knowledge.

Teach elected officials about watershed and pollution prevention issues so they can teach the community. By attending festivals and events, agencies can spend one on one time with individuals and educate their families. Again, respondents felt school education for the children is key.

An interesting suggestion by a respondent was to have a wide range of spokespersons to reach different people from different audiences. Whether it is sports figure, actor, or a local hero, high profile people for different audiences could extend the message further.

Some respondents felt that stricter regulations along with stiffer fines for residents was the best method.

### **Interagency Collaboration**

The majority of respondents (19 out of 21) felt interagency collaboration was key to educating the Bay Area on protecting its watersheds. The economic impact of sharing resources and having a consistent message was important to respondents. They also mentioned it would bring more attention to the public that is more than just a community issue, it is Bay wide.

These respondents suggested partnering with the California Department of Fish and Game, the California Air Resources Board, Bay Area Air Pollution Control District, local municipalities, California Department of Transportation and the Regional Water Quality Control Board. Of those interviewed a large majority would be willing to co-sponsor or support watershed education efforts.

*"Yes. It shows the public that it's not just local concern."*

*"Yes, it reduces duplication of efforts and also we can magnify our efforts by collaborating with larger agencies."*

*"Yes, so that there is clear and consistent messages to dischargers and to the public."*

### **Outreach Tools Used For Communication**

Most respondents indicated that they communicate with the public through brochures, newsletters and participating in clean up events and festivals. Several have schools programs for educating children and teens. Others reported organizing local workshops and educating city council. A corporate stakeholder sponsors a green week and recycling effort and uses it as an opportunity to teach employees and their families how to take care of the environment. They also said that websites are an important source for information as well as email briefings and corporate stakeholder presentations.

### **Adding Stakeholder to BASMAA's Database**

When the respondent was asked if we could add their name to a list of key people we would like keep informed about BASMAA's Regional Advertising Campaign effort, a majority of the interviewees were willing to be added to the database of stakeholders for future use. A list of all stakeholders is located in appendix A.

### **Other Potential Stakeholders**

Below is a detailed list of individuals, organizations or community groups that were identified by respondents when they were asked if they knew of other individuals in the Bay Area whose input would be helpful as BASMAA plans its Regional Advertising Campaign.

#### **Individuals**

- Andrew Aguilar, Santa Rosa
- Kelley Crawley, The Audubon Society (408-252-3740 or [advocate@scvas.org](mailto:advocate@scvas.org))
- Kevin Green, City of San Ramon
- Jay Hoyer, Walnut Creek Chamber (925-934-2007)
- Jim Jakel, Executive Director of the Contra Costa Council Staff
- Bruce Kern, Contra Costa Council
- Mondy Lariz, Northern California Dept of Fly Fishers
- Douglas Linney and Donna Kerger, East Bay MUD (510-444-4710)
- Maria Lovallo
- Leo O'Brien, San Francisco Bay Keeper (415-561-2299 ext 102 or [leo@sfbaykeeper.org](mailto:leo@sfbaykeeper.org))

- Michael Stanley Jones, Silicon Toxics Coalition –Sustainable Water Program (408-287-6707 ext 309 or msjones@svtc.org)

### **Organizations/Community Groups**

- The Audubon Society
- Bay Area Pollution Prevention Group (BAPPG)
- The Belmont Chamber of Commerce
- City of San Ramon
- City Public Works Directors and Planning Directors
- CLCA (California Landscaper Contractor Association)
- Cargill Salt
- Contra Costa Council
- Developers and real estate associations
- East Bay MUD
- Environmental Justice Coalition for Water
- EPA
- Goelitz Chocolate and Jelly Belly
- Green Belt Alliance
- Hispanic Chamber of Commerce (Board of Directors web address: [www.h5c.org](http://www.h5c.org))
- Northern California Dept of Fly Fishers
- Regional Water Quality Board
- San Francisco Bay Keeper
- Save Mt. Diablo
- Silicon Toxics Coalition –Sustainable Water Program
- Walnut Creek Chamber
- Marin Builders Exchange

**APPENDIX A****Stakeholder List**

<b>Name</b>	<b>Organization</b>
Jim White	Coen Company, Inc.
Tom Dehaan	Coen Company, Inc.
Sharon Gosselin	Alameda Clean Water Program
Kathleen Phalen	San Mateo Countywide Stormwater Pollution Prevention Program
Toby Brink	San Ramon Chamber of Commerce
Enrique Ruiz	Contra Costa Hispanic Chamber of Commerce
Donald P. Freitas	Contra Costa Clean Water Program
Trish Mulvey	Clean South Bay
Frank Morris	Solano County Water Agency
David Okita	Solano County Water Agency
Dave Connolly	Anheuser-Busch
Barbara Ruff	Fairfield-Suisun Sewer District
Fern Wilson	Vallejo Sanitation & Flood Control District
Dan Tafolla	Vallejo Sanitation & Flood Control District
Gina Purin	Marin County Stormwater Pollution Prevention Program
Liz Lewis	North Bay Watershed Association/MCSTOPPP
Nick Virgallito	Concord Chamber of Commerce
David Lewis	Save the Bay
Barbara Ebel	San Mateo Countywide Stormwater Pollution Prevention Program
Brian Bellante	Auto Diagnostic & Repair
Nimat Shakoor-Granthan	City of Vallejo
Linda Novy	Gardners Guild

## APPENDIX B

### Bay Area Stormwater Management Agencies Association Stakeholder Focused Interviews

#### INTRODUCTION

The goal of the qualitative research is to examine the level of awareness, perceptions and attitudes among key stakeholders in the area served by the BASMAA Regional Advertising Campaign about important issues involving watersheds related issues including stormwater runoff pollution and pollution prevention practices. The qualitative research is implemented through focused interviews and information exchange meetings.

From qualitative research, insight is gained into how best to communicate with the specific audiences within the community, region and Bay Area. The main objectives of the interviews are the following:

1. Get advice on core messages related to the connection between individual behaviors, the watersheds in which they live and their effects on water quality
2. Understand the attitudes and perceptions of Bay Area residents about their watersheds, water quality and the environment;
3. Solicit input on effective tools and campaign approaches;
4. Identify community-based groups and public/private partnerships where BASMAA's public outreach activities can be communicated;
5. Gain insight into geographical differences in attitudes and perceptions about watershed related issues, stormwater quality issues and resources.

The focused interview process will provide essential findings that will guide the development of the Regional Advertising Campaign. In addition, the process will lay a foundation for each stakeholder to help in the public outreach effort. Focused interviews provide the opportunity to establish relationships of trust with these key leaders, understand how they see their constituency, identify existing resources, and lay groundwork for future cooperative efforts.

#### METHODOLOGY

The stakeholders to be selected for the focused interviews will represent participating agencies of the BASMAA campaign effort, leaders of regional watershed protection efforts, community groups and leaders of key ethnic groups within the region. The key leaders of these organizations are in positions to reflect the attitudes and concerns of people within their organization and communities.

A comprehensive questionnaire will be developed with the assistance of the BASMAA Regional Advertising Committee to assure the questions are well phrased and effective in soliciting the appropriate responses. The questionnaire will be open ended in that it will allow the respondents to comment about those issues they feel are most important.

### STAKEHOLDER QUESTIONNAIRE

Date: \_\_\_\_\_ Interviewer: \_\_\_\_\_

Name: \_\_\_\_\_

Organization: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

Hello. My name is \_\_\_\_\_ and I am calling/visiting on behalf of the Bay Area Stormwater Management Agencies Association (BASMAA). I'm part of Panagraph's public outreach team that has been contracted to assist in the development of their public outreach effort. We are seeking input from several key community leaders like you to decide how best to approach our public education effort. This process should take no longer than 30 minutes. Your answers will be kept confidential at all times.

1. First I am going to list some major issues facing the Bay Area today. Please tell me what you think are the top three issues.

- |                           |                       |
|---------------------------|-----------------------|
| _____ Water Supply        | _____ Water pollution |
| _____ Economy             | _____ Air pollution   |
| _____ Growth/Urban sprawl | _____ Transportation  |
| _____ Security            | _____ Environment     |
|                           | Other _____           |

2. Do you think there is a link between air pollution and water pollution?

Yes \_\_\_\_\_ No \_\_\_\_\_ Why?

3. We would like to ask about your knowledge of stormwater management in this region.

- a. Who is responsible for it?
- b. How is stormwater collected and where does it end up?
- c. How is stormwater management financed?

4. Now I'm going to read four statements. In your opinion, which statement best describes stormwater in this region?
- It is a problem needing a solution.
  - It is a resource being well managed.
  - It is a link to environmental quality.
  - It is a "Top Ten" priority.
5. Have you heard anything about the presence of water pollution problems in our region?
- Yes \_\_\_\_\_ No \_\_\_\_\_
- What have you heard?
  
  
  
  
  
  
  
  
  
  
  - Do you remember where you heard or read about it?
6. Do you think the community understands the seriousness of water pollution in our area? Why do you say that?
7. What, in your opinion, are the principal sources of these water pollution problems?
8. Do you consider stormwater runoff to be a major source of water pollution in your community?  
Yes\_\_\_\_ No\_\_\_\_  
Why?
9. Do you think stormwater runoff poses a major risk to the Bay area environment? Why?

10. As you may know, street drains and gutters in the neighborhoods of our watersheds help control the runoff from rain and landscape watering by directing most surface water flows into an underground storm drain system that leads to a creek, river, the Delta, the Bay and the ocean. Do you think people in your organization understand how the storm drain system works?

Yes \_\_\_\_\_ No \_\_\_\_\_

11. We want to take a few moments and talk with you about watersheds. First, when you think about the watershed you live in, what is the first thing that comes to your mind?

#### WATERSHED DESCRIPTION

A watershed is the land that water flows over or through on its way to a creek, delta, or bay. Water travels down hills, across fields, suburban lawns, and city streets to the lowest point (usually a creek), or it seeps into the soil and eventually into the groundwater.

All living things are part of a watershed and we all influence what happens in our watersheds by how we treat the natural resources- the soil, water, air, plants, and animals. For example our daily activities such as driving to work, gardening, or washing our cars influence the health of the watershed. Rain and water from garden hoses washes materials such as motor oil, pesticides and litter off of the watershed and into gutters and storm drains. Storm drains flow directly into a watershed's creek, delta or bay.

12. In your view, how would you describe the health of the watershed you live in? Why do you say that?
13. Whose responsibility is it to protect the health of the watershed you live in? Why do you think that?
14. What can we, as a community, do to address our water pollution problems and to protect our watersheds?
15. How can we help the public better understand the concept of a watershed? What methods would be effective in communicating these issues to the people in your organization?

16. In your opinion, what is the best method to educate and inform our community about the importance of watershed related issues including water pollution prevention practices?

17. Do you feel it is important to have interagency collaboration on the protection of watersheds?

Yes \_\_\_\_\_ No \_\_\_\_\_ Why?

a. Which agencies would you suggest to partner with BASMAA or your local stormwater pollution prevention program?

b. Would your agency participate in or co-sponsor events on stormwater quality and/or watershed awareness?

c. What public outreach tools does your agency/organization use to communicate?

18. We would like to add your name to our list of key people who would like to stay informed about BASMAA's Regional Advertising Campaign effort. Is that all right with you?

Yes \_\_\_\_\_ No. \_\_\_\_\_

19. Are there other individual, organizations or community groups whose input would be helpful to use as we plan our regional advertising campaign? Yes \_\_\_\_\_ No \_\_\_\_\_ Who?

Thank you for your time. It will be very helpful to us as we strategically plan BASMAA's Regional Advertising Campaign.

**APPENDIX C**

**Bay Area Stormwater Management Agencies Association  
Stakeholder Responses**

**1. First I am going to list some major issues facing the Bay Area today. Please tell me what you think are the top three issues.**

<u>4</u> Water Supply	<u>5</u> Water pollution
<u>8</u> Economy	<u>4</u> Air pollution
<u>10</u> Growth/Urban sprawl	<u>15</u> Transportation
<u>2</u> Security	<u>7</u> Environment
	<u>10</u> Other

- Cost of living/high cost of land
- Land use issues/urbanization
- Land use
- Political leadership
- Crime
- Security
- Water allocation
- Housing
- Cost of housing
- I can't think of a third.

**2. Do you think there is a link between air pollution and water pollution?**

Yes 19 No 2 Why?

- Yes, it's all one system. Pollutants that are released in the air are deposited on the groundwater.
- Yes. What goes up goes down. What goes down washes off the surface and then flows into a body of water or over land into the system.
- No. I don't see a direct link.
- Yes, because there is. Look at the data. Air is a conveyance. Pollutants deposited on a land surface get washed into creeks.
- Yes. Whatever goes up comes down and it will get into the water.
- Yes. I'm a chemical engineer and research scientist. I know air chemical reactive systems.
- Yes. Dried precipitation falls out and transportation and direct runoff from roadways.
- Yes, a little bit when it rains. Runoff is a different issue.
- Yes. What goes up comes down.

- Yes. Studies have been funded to prove it and there is mercury that comes through the rainfall and drains into the North Bay watershed. Also what goes up comes down, like diesel smoke.
- Yes. When it rains whatever goes through the air gets into the waterways or it settles on the streets and washes into the water.
- Yes, what goes up must come down. Like auto exhaust.
- Yes, definitely. We know that we strongly suspect that many of the toxins ending up in the bay and in the fish in the bay come from the air (toxins come down and go into the water).
- Yes. I've read about it at the drain. When things go up in the air and it rains, the particles go in the water.
- Yes, pollution in the air could land in the water.
- No.
- In the Bay yes. It's all a part of the same process.
- Yes, it's because of air deposition. That is, rain brings particulate matter to the ground. Like when lead gets into the runoff.
- Somewhat. If we get smog in the air it will come down into the water.
- Yes, but there is more of a link between air pollution and transportation. Cars put a lot more stress on the environment, all gas power vehicles do. A lot of people don't know about the environmental connection.
- The perpetrators are polluting the air – refineries and business; industrial area

### **3. We would like to ask about your knowledge of stormwater management in this region.**

#### **Who is responsible for it?**

- The City, we are co-permittees with other cities and the County.
- Local governments. They are responsible for implementing the NPDES permit.
- I don't know. Is it individual cities and counties?
- Regional boards issuing permits, municipalities and other agencies implementing them. At a fundamental level everyone who lives and works here deals with it.
- Two of our staff are part of the Stormwater Management Sewer District.
- The Regional Water Quality Board. I'm a permittee.
- It's a split between two Regional Boards. There are discrete geographical boundaries for our agency. County Unincorporated land is involved before it gets to Delta.
- The Sacramento Regional Board.
- Countywide each municipality has a coordinator.
- N/A
- This District, we are the sole authority for stormwater regulatory control.
- N/A

- Regional water quality control board; flood control districts; dischargers including sewage districts and point source permitted.
- We are all responsible. The permit is run by the Regional Water Quality Control Board. We are co permittees. We discharge our stormwater into the bay and we are charged with educating the public about what goes in the gutters and ends up in bay.
- The County.
- N/A
- San Francisco, East Bay Municipal Water District, RWQCB.
- The EPA, CCCWP, RWQCB and all the cities.
- The city.
- The Public Works Department. There is a greater authority who sets the policy. They are a regional group, but I can't recall their name.
- Bay area water quality board; Air quality management

#### **How is stormwater collected and where does it end up?**

- There is very little collection in our city. Everything runs to the local creek, runs into streets, conduits and to the Bay. We have no catch basins.
- It runs over the land and either goes into a creek, culver or channel or goes into the gutters and storm drain and then ends up in the Bay whether it's a natural drainage system or a manmade system. The result is the same.
- It goes down creeks and city sewer systems and ends up in the Bay.
- Its not collected, its conveyed. It goes through the storm drain system to creeks, the Bay and the ocean.
- Storm rain ends up in marshes and creeks and then goes into the Bay.
- The stormwater line is used to collect in a separate system. It is then released into several systems and released to the Bay.
- There are flood controls that our city drains into then it goes to the Delta. There is a facility in an adjacent city and also a marsh area. The city has its own system.
- It falls on the ground, goes to the storm drain, creeks, wetlands and then to the Bay.
- To the west county, then to the ocean.
- Through the streets and into storm drains, ditches and ends up in the Carquinez Straits and Napa River.
- N/A
- Most is not collected and runs directly to the Bay without being treated.
- Pipe systems (DI – storm drain inlets) stenciled with “Only rain in the storm drain.” It ends up in the Bay.
- It is collected through the drains in the street and goes out to the Bay.

- Some of it goes to culvert, then to creeks. Some of it goes to the sewer then to a treatment plant.
- The technicalities I don't know. But I do know that the new permit may mean expansive new requirements for business.
- Runoff goes to creek, culvert and the Bay.
- There are drains. Some goes to the Delta.
- A lot of goes right to the Bay. Sewage is treated. Other discharge (like that from manufacturing plants) has to be treated first through a treatment plant. Then it goes to the watershed.
- No not specifically – from streets and ends in bay

### **How is stormwater management financed?**

- Through stormwater collection user fees on parcels and NPDES fees.
- Financing is different for different places.
- Property taxes.
- It varies by community. Some do it through a general fund, others through utilities or sanitary sewer but that is being challenged.
- Through fees.
- Permittee fees and general funds.
- I'm not actually involved. No one has told us to do plans or monitoring.
- N/A
- Revenue from two municipalities in the County. Some comes from taxes and the general fund.
- Alameda fee schedule.
- Storm drain user fees and sanitary sewer bill.
- N/A
- The regional water board budget is determined by the state water board system.
- We have a fee that attaches to every parcel (a couple dollars a year). They also collect NPDES fees with building and development permits. Some cities finance through a general fund.
- By taxes from the State.
- I don't know.
- Through state and local agencies with taxes and permitting money.
- It is financed through 19 cities and the county, 18 are stormwater utility assessments and 2 sewer assessments.
- I have no idea.

- Different districts are created and taxes are assessed.
- Probably taxes or bonds

4. Now I'm going to read four statements. In your opinion, which statement best describes stormwater in this region?

- It is a problem needing a solution. 2
- It is a resource being well managed. 1
- It is a link to environmental quality. 11
- It is a "Top Ten" priority. 7

- No response

5. Have you heard anything about the presence of water pollution problems in our region?

Yes 19 No 2

**What have you heard?**

- In build out areas we have urban runoff problems. There are many homes where fertilizers and pesticides are overused. We're an older area and experience sewer spills and cross connections.
- Oil, pesticides, fish and mercury.
- Arsenic is way overblown. I know there's talk about contamination of groundwater with MTBE gas tanks, but the politicians just want to blame the oil companies. I've heard about runoff in the South Bay. Aren't there heavy metals in local estuaries? But it's not their fault.
- It's a problem affecting water resources like creeks and the Bay. There is a combination of conveyances but it starts with what goes on locally and the way we live and work. Runoff, air, municipal and industrial sewer discharges all contribute.
- Recently MTBE is being addressed because gas prices will go up.
- About the gas addition and MTBE. There are stricter regulations coming across for larger industries. We had certain restriction in place since the 1800s.
- I hear about urban runoff, metals, issues points open for sewer treatment plant, refineries, runoff from ag like pesticides and herbicides. Also about sediment control - turbidity and organic carbon.
- N/A
- There are pathogens in the water from dairies, ranching, faulty septic systems, pet waste, MTBE from boaters and excess silt and sediment.
- About pesticides, military bases, horses, solid waste in creeks and habitats alteration to the creeks.

- The biggest issue is dumping oil, garbage and leaves into creeks and streets. People don't take care of cars. It's an economic problem.
- About the propane tanks and that there is homeless near the water. Camps are being set up in the open space down by the river.
- Water pollution is a problem for streams and bay for the aquatic life. Drinking water pollution is a problem.
- Concerned about mercury in the bay. People turning in old thermometers. Mercury mines – creeks and bays.
- I have lived here for 26 years don't recall hearing or seeing anything on pollution. We don't have a problem.
- I've read in the newspaper about the need to be careful with motor oil, not to put it in drains and to be careful with discharge from vehicles.
- I know about the refineries. I also know we use reverse osmosis in the treatment plants.
- Being an expert my answers would be too lengthy.
- You can't eat fish and you shouldn't swim in the Delta.
- There is still pollution from factories that make computer components that is getting into the Bay. There is also runoff from automobiles and trucks. A lot of pesticides, including fertilizers that are used get washed down drain. They are used near fresh water bodies like our local creek riparian areas.
- I've seen it. Floating in water – oil, sludge – where wildlife is – it jeopardizes our wetlands

**Do you remember where you heard or read about it?**

- N/A
- I've worked in this effort for a long time so I keep up with the issue.
- N/A
- It surfaced when our organization was developed – we were used as a case study on the 1987 Clean Water Act.
- The news – KGO.
- From various media sources: TV, newspaper, discussions with OES, etc.
- We are dealing with it daily.
- N/A
- N/A
- N/A
- N/A
- N/A
- We are the collection point for this info – we work with scientists, agencies and communities.

- I've attended technical advisory meetings and am apart of the countywide pollution prevention program.
- It's not a topic of conversation at parties, etc... I haven't heard anything.
- From newspapers in the area.
- In this city we don't have a lot of manufacturing or industry. If you go to the north, where the refineries are, then you'll learn about it.
- The San Francisco Chronicle and the Contra Costa Times (it is an insert that runs Wednesday, Thursday, Friday).
- It's out there. From people I guess.
- I read about it in the Bay Guardian. I'm also a member of the Bay Institute.
- I've seen it myself

**6. Do you think the community understands the seriousness of water pollution in our area? Why do you say that?**

- No, although the community has an environmental mentality, they can't make the connection of what you put in the creek affects the Bay and the environment. They still don't get the link.
- No! Look at how we see more trash everywhere. If people cared they wouldn't do this!
- I don't see it as serious. I define seriousness as health related and I see no evidence. All we hear about is parts per billion and trillion.
- No. They don't understand how the system works and fundamentally they don't understand how individual behaviors at work and home wind up releasing contaminates that cause water pollution problems.
- I don't think they do, at least when I get feedback from them. They are surprised by the information I give them.
- No. I do know through observation that there is a lot of stuff being released from residential areas.
- No. It's not a high priority in relationship to traffic and the economy.
- I do not relate to or understand where water comes from.
- No. They are receptive to the issue and higher cancer rates. Certain areas know that pesticides are bad, but they like them. They don't understand the link to the damage that can be done to habitats.
- They do but they don't know the consequences of their actions.
- Not the community as a whole. I don't know if it is not understanding or not caring.
- People care but they don't understand that their everyday actions make a difference. Like their use of pesticides, throwing out cigarettes, etc.
- No. Because the bay is not a source of drinking water and a small minority use the Bay for recreation. It is the largest body of water and everything is connected to it. People don't swim in it or drink in it. There is a state warning suggesting that people not eat more than two fish a month. Smart people don't eat fish from bay. Most people aren't aware of this issue. Most low

- income, immigrate and non-English speaking use it for a food source and aren't aware of health issues.
- Not really. Or they wouldn't throw garbage all over.
  - No. I have seen neighbors put things down storm drains when they shouldn't. Our kids are aware of what pollutes and most of the public understand not to directly dump into drains, but that's it.
  - I don't think so. People aren't very careful with their personal habits.
  - This is not the issue they think about here. People only will begin to pay attention when it costs them!
  - No. The City staff is aware, but not the general community. To get our message across we need millions of dollars to use in a mixed media campaign. Television in particular.
  - I don't know.
  - No. Most people rely on government standards and think someone else is taking care of it. Homeowners point the finger at ag and landscape contractors for polluting with pesticides and fertilizers when it's the homeowners who use more.
  - No. They don't think they venture out and see the hidden waterways

**7. What, in your opinion, are the principal sources of these water pollution problems?**

- They're entirely residential.
- Individual behavior.
- Population.
- Everything and everybody.
- Stormwater, cars, yard care products, chemicals. People don't have a clue that litter (cigarettes) has an affect.
- Residential areas, it's an unmitigated source.
- Urban runoff, pesticides, herbicides, turbidity, organic carbon, metals, refineries...
- Urban runoff in general, mercury from old mines, residential housing issues. Turkey grease is also a problem.
- Pesticides, sediment, pathogens and herbicides.
- Automobiles, oil, brake pads, dust and dumping fluids and litter.
- Pesticides (Diazinon).
- Air and land pollution including local pesticide use and Central Valley agricultural pesticide use is in the bay. Abandoned mercury mines run off into bay – motor vehicles and by products run off. Point source pollution and sewage.
- Overuse of pesticides and over watering after application. Industrial and residential disposal of wastes. Old garbage sites.
- Runoff from streets and gas and oil from automobiles.

- Through our culverts, chemicals and other stuff leaks during rainstorms.
- Manufacturing and refineries number one, then Silicon Valley waste from computer screens second and third dumping oil. Having engines on you block.
- We just need to get on cable TV. As much television as possible is the key to educating people.
- All the people, cars, and just living.
- There needs to better enforcement and penalties for business and incentives for doing the right thing.
- People dumping in the water; trash; oil, possibility big business with toxic runoff

**8. Do you consider stormwater runoff to be a major source of water pollution in your community?**

Yes 16      No 5

Why?

- For the creeks yes, but our creek is not highly contaminated.
- Yes, because of my job and my education I know how serious this is.
- No. Both places where I have lived the storm drains have been lined with concrete so it just goes into the Bay.
- Yes. Not only about pollution of stormwater, it's more the way urbanization causes changes in timing in the runoff that affect the local creeks. I hope that we can reconnect people in the communities with their local creek system. Creeks are a part of quality of life; people need to appreciate natural resource values. Tadpoles, frogs, ladybugs – connect with the natural world.
- It picks up all the pollution that we are throwing and spraying on the ground or that lands on the ground.
- Yes, there is an unmitigated source from residential.
- Yes. Most of the point sources have been take care of through enforcement.
- Yes, there are land use issues about drinking water and extensive grazing in watersheds.
- Yes, maybe in October when there is the first flush.
- No, not major.
- Yes. It carries and washes pollutants in the street and into the river.
- Yes. Living in the city there are many surfaces that water can't filter through and runs off. The bigger the city, the more concrete and asphalt and the more pollution.
- There is no treatment and it is a heavily urbanized and farmed area – they directly feed into the water pollution.
- Just because what I have learned being on the committee.
- No, I have not read about it. I have no data on it.

- Yes, because of articles in the newspapers I know it's serious. A lot of people are not educated about the fact that one gallon of oil makes a lot of pollution!
- No. Our systems here watching for it are great. We have good recycling and HHW collection!
- Yes. Raw surface water in the Bay Area is used as a portable supply so we need to keep it clean. To protect the water supply and environment and to keep costs down.
- No, not a major source, but partial yes. Then again everyone contributes. People like to congregate.
- I'm not educated enough to answer that. There is probably a good deal of it. I don't of any quantifiable measures to know for sure. I would say that in my area is a moderate to major source. In Marine we don't have a lot of manufacturing and non-point source pollution.
- Yes – dumping and runoff

**9. Do you think stormwater runoff poses a major risk to the Bay area environment? Why?**

- Stormwater runoff is number one in the top three along with residual pollution at the bottom of the Bay from the past and industrial contributions.
- Yes. I keep thinking what this area could be like and what it was like before it was ruined. We need to help people "see" this.



- No. There was a recent crab report and they are very healthy in our bay.
- Yes, because it's the way urbanization causes changes in timing in the runoff that affect the location of creeks.
- In the long run any pollution causes a risk. I don't know how major. If we can do anything to help and curtail it, we should.
- Locally, yes. There are general algae problems and nitrates contributed by residents.
- It is some type of risk but we don't know enough.
- It is not major but there is moderate risk in terms of sediment loads. Pollutants from toxics are not a major issue.
- Yes if not properly managed it will happen.
- Yes.
- Not as much as it is a problem. It is more of a problem locally, not bay area wide because it's diluted. There is more contamination in local creeks that damages wildlife. It is not an immediate risk, but the build up of pollutants will continue to be a problem.
- N/A
- Yes, because of the continued accumulation of persistent toxins in the bays sediment, water column, and species.
- Yes, it is already made the fish in the Bay so you can't eat them any more. All our water goes to the Bay.

- It's not a major risk. It is a small risk because it [the water] is diluted.
- Yes, because of how much pollution there is.
- Somewhat, mostly from improperly stored chemicals.
- Yes, drinking water supply, particularly with BASMAA, we need to take a targeted approach. Television.
- It is the same as it does for the community. It is not a major source, but again partially yes. Then again everyone contributes. People like to congregate.
- Absolutely. You can't fish. Everyone knows that you can't eat the fish out of the Bay. They still don't make the connection to their own individual actions.
- Yes; total messes up water life – destroys it

**10. As you may know, street drains and gutters in the neighborhoods of our watersheds help control runoff from rain and landscape watering by directing most surface water flows into an underground storm drain system that leads to a creek, river, the Delta, the Bay and the ocean. Do you think people in your organization understand how the storm drain system works?**

Yes 17 No 4

- Probably yes.
- Yes
- No
- Yes and No. There is a coalition of different groups that convenes on specific issues like this, they would understand. The community would not.
- Yes
- Yes, they better. I teach them every year during our employee instruction. We are very proactive in environmental education.
- Yes, there are more professional, but the public does not.
- Yes. We are aware of all general water issues.
- Yes
- Yes
- Yes
- Yes, somewhat better than the public. But the public does not understand that storm drains direct run off and but does not control runoff. There is over paving of our region with impermeable materials that actually increase runoff, erosion and concentration of non point source water pollution.
- No, the public doesn't. We have had a booth at the county fair and people aren't aware that water goes directly to the Bay and not through a filtering process.
- Yes
- Yes

- No, only those who feel the cost.
- In my department yes, but in public works no.
- Yes
- Yes, I think they do.
- Those who work directly with sanitation knows; but in general no

**11. We want to take a few moments and talk with you about watersheds. First, when you think about the watershed you live in, what is the first thing that comes to your mind?**

- Trees and habitats.
- A little creek. Ducks. Then my neighbor's erosion and his not following the rules.
- Crystal Springs is an example of how the Hetch Hetchy Project has provided a long-term watershed for us.
- It's the most inter-jurisdictionally complicated watershed in the Bay area. The land area of a watershed is defined where rainfall runoff flows.
- The hills around us.
- The lake.
- The impact of urban growth on the watershed. It is negative unless it is mitigated. Also agricultural development.
- Creeks, environments and habitats, shopping carts, debris and intentional disposal.
- Creeks.
- Hills.
- A geographic area that delineates the city. A system of environment and people mixed together.
- The watershed comes alive when it rains. Water rushing everywhere, coming down and meeting at a central point. The Napa River, the Bay and then to the ocean.
- Diversion of water out of our watershed.
- It needs protection.
- Water coming off the hills and coming under highways into your neighborhoods. The water percolates in the neighborhood. It brings in grainy soil and we have to pump it out.
- It needs to be cleaner.
- Communicate the economics of this issue. Business people understand facts about the interdependency of economic systems. Educate also about the interdependency between communities. Just because we don't have a problem doesn't mean we shouldn't care about what happens elsewhere.
- I think of all of Mt. Diablo. River sources like Mt. Diablo to the river, San Francisco.
- Something that stores water.
- Reservoirs

- Don't know

## WATERSHED DESCRIPTION

**12. In your view, how would you describe the health of the watershed you live in? Why do you say that?**

- The health is good in the hills, but it gets worse downstream where there is more urbanization. It has a cumulative impact.
- First of all it's artificial, not pristine. Second, urbanization brings pervious surfaces and third watersheds are disregarded.
- Okay.
- Its one of the healthiest watersheds in the South Bay area because it is largely still natural and hasn't been turned into a concrete channel. We've got one of the remaining steelhead runs in the South Bay.
- I don't think it's good. There is a long way to go. We can make it better. Tell people not to litter because the less that they put on the ground the healthier it can be.
- Overall my major concerns are ag and large residential areas. The water quality of homes and ag is worth more than the residential areas. I'm not sure of the health.
- It's in pretty good shape. We need to monitor them to make sure they don't get bad.
- Overall it's in good shape. We have quite a bit of open space that gives us a buffer. It reduces the specific impact.
- Overall it's moderate to good. It's better in the hills.
- It's pretty good.
- Impaired. It's mainly due to the amount of people that live here and it's intermingled with urban area of Vallejo.
- We have a lot of outside pollutants coming from other areas. Through the river, we have each others run off.
- Challenged and severely degraded, because a majority of water that falls into our watershed from rain is diverted out of our watershed for ag and industrial use. 95% of wetlands have been filled, covered or destroyed because significant species in our watershed are threatened, endangered or extinct. Non-point source pollution especially the unregulated components continue to pour in.
- Fair. I think people aren't aware of the ramifications of their actions. They don't know about how litter and disposals of toxins can get into water supply.
- It is pretty good. The neighborhoods are prominently residential. There is very little industrial so there isn't much pollution. I am sure it does pick up oil, grease, fertilizers and stuff but not as bad as industrial or farming. Industry is illegally pumping into the Delta and the Bay. My kids were water-skiing and were caught in it. There are farmers that dump fertilizers and pesticides directly into the Delta. It should be illegal.
- It's in poor condition, but we have seen some improvement in it. There are fish that we now see in our local creek.
- There is an absence of problems here.
- Poor. We do have a lot of ag runoff, urban and industrial runoff and air deposition.

- How healthy? I don't know. Would I want to drink the water? No.
- I think it's pretty health. I live in Marin and hiked up the watershed recently. I also live on creek. The last ten years the health has improved in terms of creeks and the watershed itself. There still is an issue of outflow into watershed from pesticides, fertilizers and heavy metals. On scale of one to ten, ten being the best, I would rate it at about a five. There has been a big push for creek health recently.
- Not healthy. Because I have seen where water accumulate; inlets, and its filthy -

**13. Whose responsibility is it to protect the health of the watershed you live in? Why do you think that?**

- Everyone. It is not possible for single entry to solve the issue.
- Primarily it's everyone's. We all can affect the health of the watershed so it's our responsibility to protect them. It's easy in the Bay area to not feel a part of nature. We're so urbanized. The campaign needs to connect us to the nature around us. If people understood that then they would care more.
- N/A
- Everyone that lives and works here.
- Everyone.
- The Regional Water Control Board and local EPA agencies assigned to water.
- It's a shared responsibility of different agencies and private landowners. No one has overall authority.
- There is a factor of stewardship. Government agencies and landowners work cooperatively.
- We all are -everybody, everyday.
- Our actions.
- Everyone, but we are the ones that are legally responsible due to our NPDES permit. Everybody is responsible for the watershed.
- Everybody's. People disconnect from the watershed unless they are intentionally dumping.
- It's everyone's responsibility. Individuals, but primarily its state and local governments with, we would hope, assistance from feds.
- Everyone, because we all live here and our actions affect everyone. Tell people to do their part.
- Partnership of the City, County and State.
- The County. That's their job.
- Every citizen has a responsibility! At the chamber we know all businesses have a responsibility!
- More the local stormwater program. Also federal, state, local and individuals. Everyone.
- The people that live in it. People are responsible for their own environment.

- Every individual person needs to own it.
- Everybody

**14. What can we, as a community, do to address our water pollution problems and to protect our watersheds?**

- I think we are doing the right thing; we just need to do more of it. We have to look at public information and education, practices and land use. All these things together can help. Our program (permit) is now paper heavy, because it's oriented towards self-reporting to achieve its objectives. People dislike the program. They want to shift toward action.
- We need to look at our own actions. Look at how we affect our watersheds, and then change our activities. Pack it in -pack it out. Tread lightly.
- Change the rules.
- By treating rainfall as resource to be valued.
- More community based clean ups and science fairs.
- Awareness!
- It depends on the particular watershed. Generally stenciling and assessment must be made to assess the problem.
- Public education. Kids and proper stewardship. Kids teach parents.
- Use less pesticides. We need to think like a community. Think globally- act locally.
- Think about the watershed not just the jurisdiction.
- We've taught that it begins at your backdoor. Individual responsibility is important, not using pesticides and fertilizers. Doing things differently. Go to car washes and have them sweep rather than hose.
- People aren't aware that those actions cause pollution. Raise awareness issues.
- Regulate, enforce and improve pollution control at all levels. Educate the public on individual actions and create incentives for them to do so. Fully fund aggressive restoration for habitat species and the public agencies that can carry out that task. And first do no further harm. Connect the pollution prevents and wetland restoration with (in addition to source reduction) the restoration of creeks and shore so we can provide water quality benefits. Removes sediments, flood control and habitat. We need incentives for more permeable pavement especially in places where there are roads. There are schoolyards that are asphalt and all the water runs off into creeks. If those pavements were permeable most of the water would go into ground. There are more permeable pavements to look into.
- Educate people so they are made aware that their actions will directly affect water quality and the Bay and ocean.
- Education.
- Teach about vehicles and the need to properly dispose of oil and chemicals. Teach that exhaust from cars also impacts water quality. We need to get rid of MTBE.

- Go grassroots. The effort must come from the bottom up rather than the top down. We believe in leading by example.
- Educate what behaviors do to their watersheds then move to stewardship.
- Educate them. Go into the school system or whatever.
- Educate school children; it will ripple out at home. Go to businesses and get them certified, like with the Green Business Certification.
- More public info on what a watershed is and how it operates – how it will effect us – damages wetlands – what is the future of our watershed and quality of life – cities get together and imposing fines for those who violate the watershed.

**15. How can we help the public better understand the concept of a watershed? What methods would be effective in communicating these issues to the people in your organization?**

- First we need to reach those who haven't heard our message. We also need a multilingual (Spanish) campaign and connect with homeowners (like those going into the Home Depot).
- It's a big effort to change social consciousness. Change begins with awareness. There is a lot of variation between education and making people accountable. For this we need enforcement. Perhaps we need to shame people or appeal to guilt.
- No response.
- I'm still trying to figure that out. We need to make the transition from pollution behaviors to trying to come up with a way to increase knowledge about what our local creeks are and where you can go to enjoy them. Let people know what a watershed is. Help people to connect with it and help encourage changing behaviors. Link them with the state curriculum. The younger they learn the better, but I'm not sure at what age and how do you teach them. Some students were given a satellite image of bay area and they could not figure out where our town was.
- Working through schools is the real way. Talk to board members, they have a voice in the community and theirs is heard when ours isn't. Plant tours and schools.
- Get the local media to cover an issue. Do public outreach for kids. Educate them young. Also use print media.
- School programs, newspaper articles, and PR. Link it to something that affects them like fishing or boating.
- Focus on drinking water. People are concerned and link that back to drinking water. Provide websites with information. Make it accessible to the public. Use public groups, watershed groups, places where they can take ownership.
- Through drawings, pictures, photos. We all live in a watershed.
- Let them know where their place is in the watershed. Have dioramas –make it fun.
- Continue to emphasize that they are a part of it and that they live within the watershed. It is important to the Bay Area and them. The best way to communicate is to practice what we preach.

- Connect everyday actions that are polluting behaviors to flowing water into the creek. Make a lasting cyclical message that expands off of a watershed. Communicate through schools, billboards and newspapers.
- Our priority needs to be direct education from cradle to grave and especially childhood education on experiential education in the environment.
- Sponsor assemblies where a performance group goes to schools and explain in simple terms what a watershed is. Then show that stormwater is polluted and going down a storm drain. Show them how to dispose of HHW and to drop off left over pesticides, batteries, etc. Create a calendar with pictures of the watershed. A watershed is the whole area -mountains, hills, gutters, that carries water that ends up in the ocean or Bay.
- Start with schools at the appropriate grade level so they will retain it. Teach in colleges. To reach working adults use newspaper (article or ad) and radio campaigns. Do not do any direct mail “DID YOU KNOW the watershed...blah...blah.” Make it interesting enough. Give it a good headline like “Affects of watershed in this community.” Personalize to the area.
- Use Hispanic television. Spanish speaking people watch TV. Work within our Hispanic Chamber. Have a presence at mixers and educational conferences. Participate in festivals for Cinco De Mayo and at the Concord Pavilion.
- Through public forums, press releases through local chambers of commerce. Get a list of the Chambers in the county.
- Education.
- Educate in schools and as people move here give them something in their welcome package.
- Publish arts of interests. Public education piece that are put in the paper are great. People read their local paper. Community tool kits, handouts, etc. There is not going to be one silver bullet. You need to reach people on a lot of different levels. There also needs to be metrics. Every two to four years there are indicators on health. Have quantifiable measurements done on the health of the watershed and publish it.
- Go to schools and teach kids in science. PSAs to public – it hasn’t been brought up as an issue yet. Displays at libraries.

**16. In your opinion, what is the best method to educate and inform our community about the importance of watershed related issues including water pollution prevention practices?**

- A mixed media campaign.
- Multicultural –through schools, community events and media events. A mixed media campaign.
- N/A
- Media doesn’t work. The most successful program that I have seen is in Alameda. They have a fund for setting up local creek groups and watershed festivals and community events like: Friends of Root Park became Friends of San Leandro Creek, with annual watershed art and poetry and creek festivals. Now there is the Sausal creek group – with a native plant nursery working in a multicultural watershed area
- Come up with a theme and do a Where’s Waldo kind of thing in the community. Billboards, kiosks in the mall, anywhere and everywhere they’ll keep seeing it.

- Punishment. People will listen if a residential area got a fine due to pollutants. It would be negative publicity, but it would have positive affects.
- Public education. BASMAA works with construction developers. They have a direct impact. Identify targets of sources of pollution and go after them.
- Let people know about the effective use of BMPs and help them to understand why they're required.
- Pictures showing cooperation with other agencies. You can't do it alone.
- Stronger messages with it coming from different agencies –reputation. Educate the politicians.
- TV commercials. More people watch TV than read newspapers. Teaching kids in school, because they are open to hearing what we have to say. Adults are set in their ways.
- TV for the global message, radio for communities, workshops seasonally, etc. Be specific to certain areas.
- Use repetition of the message and direct experience with the watershed. Also, it is important to have wide range of valuator and spokes people. People take questions from different people, local elected officials and other prominent people – the voice of the messages – sports figures, actors, symphony directors etc... For example, during the energy crisis there was a wide range of people saying it is important – it reached lots of different people who related to them. Advertise on different TV channels.
- Public service announcements, radio PSAs, cable PSAs, newsprint ads, creek clean up event with publicity, and coastal clean up events.
- Do it by direct mail to all residents. Keep it short, sweet and to the point. You can also do a quarterly newsletter or activity guide. Put something in those and do a special postcard mailing.
- Television during these times and shows: soap operas, 4-6 pm, and 6-8 pm. When families are watching together.
- Work through E-DAB (East Bay Development Alliance for Business). Go for worse case scenarios in your approach. Give us the facts. Don't be touchy, feely in your approach. Keep it non-political. Emphasize quality of life. Keep it simple. Do a one pager emphasizing the economic benefits like, "Do this...Save \$X.XX and help the environment." Link it to where they live and work.
- Targeted television.
- Mailers and newspapers.
- Multilevel public relations outreach through interesting stories in the paper. You can also go to county fairs, schools, etc. Hit on it everywhere we can. It would be helpful to let people know what the condition of watershed is. Create a water pollution index. Have some kind of metrics. We need clear environmental goals.
- Get it out to public to get their attention – pictures speak 1000 words. Creative advertising and see what the end results of a watershed is and then have dialog – brochures, gov't agencies do public education. People don't even know who to call. Educational forums

**17. Do you feel it is important to have interagency collaboration on the protection of watersheds?**

Yes \_\_\_\_\_ 19 \_\_\_\_\_ No \_\_\_\_\_ 1 \_\_\_\_\_ Don't Know \_\_\_\_\_ 1 \_\_\_\_\_  
Why?

- No, all the agencies want to do is blame business and industry for everything.
- Yes, it is essential, but we are in a unique area, Santa Clara Valley Water District is a special district and not a part of the county government. It is cities that control storm drains but storm drains are not creeks. We have to have collaboration with land use and water supply agencies and you've got to have communities within the watershed interacting with each other. There are no good watershed maps showing how each city is collectively responsible for the watershed. There are also economic barriers.
- Yes. Look at the global picture. As a person who deals with regulation reduction it is good to have people from other agencies and get them to contact each other.
- Yes, our water source stays in Napa and ends up in the San Francisco Bay.
- Yes.
- Yes. It shows the public that it's not just local concern.
- Yes, also economically there are more resources available and there will be consistent messaging.
- Yes, it reduces duplication of efforts and also we can magnify our efforts by collaborating with larger agencies.
- Yes, with more than just one agency there is no duplication of efforts and it adds resources.
- Yes. We do more when we work together.
- Yes.
- I'm not sure.
- Yes, it touches so many areas that we must collaborate.
- Yes, so that there is clear and consistent messages to dischargers and to the public.
- Yes.
- Yes.
- Yes, but not if it involves more paperwork. Committees meet with nothing to do.
- Yes.
- Yes. Share data with each other
- Yes, very much so. That is key.
- Yes – it all ties together. They have money and staff to advertising. Mass joint effort

**a. Which agencies would you suggest to partner with BASMAA or your local stormwater pollution prevention program?**

- N/A
- The stenciling program was effective
- Alameda, Contra Costa, San Mateo. All the organizations in BASMAA.
- The Clean Estuary Partnership Program. Have more engagement with Fish and Game. Fisheries network for the Central California coastal counties [Fish Net 4C] (they came together when salmon was listed as endangered) including San Mateo, Marin and Sonoma.
- Connect with the Air Resource Team and local waste management task force. Also SID and other sewer districts.
- The Air District.
- Work with cities and public works for planning and solid waste. Also look at the county environmental manager about grading issues and drainage.
- The Natural Resource Conservation Service, the Transportation Department, Department of Fish and Game, and local Resource Conservation Districts.
- The North Bay Watershed Associates. TMDLs –fishery, building, city manager.
- Wastewater and drinking water. Businesses and Citizens Advisory Committee.
- City public works recreation department and irrigation district.
- County environmental manager.
- Regional water board, air quality (gaping hole in the ozone), Cal Trans, and other transportation agencies.
- You can try and contact Save our Shore. They have an interpretative panel on watersheds and a slide show on watersheds – it is excellent.
- I don't know which agencies you can partner with.
- I don't know.
- N/A
- Environmental resources agencies, the EPA State Board, ag, sewer and others that partake with the water supply.
- The municipal water purification plants and sewer treatment plants.
- All public works. Stormwater Pollution Prevent Projects, the county government planner, water districts, sanitary districts.
- Code enforcement; county health and safety; fire prevention; fish and game; municipality; recycling coordinators

**b. Would your agency participate in or co-sponsor events on stormwater quality and/or watershed awareness?**

- The San Mateo County Fair and environmental groups.
- Oakland's Creak to Bay Day, Home and Garden shows, Bay Breakers, Earth Day, K FOG KABOOM, Fourth of July, Sports events, Day of the Dead and Oakland's Bay Clean Up.
- No response.
- We would make sure that we were connected with member organizations like Save the Bay, Audubon, and other local wetland groups.
- Yes.
- In general outside activities is difficult. People get way sensitive. We would need to really look at it.
- Yes.
- No response.
- Yes we do.
- N/A
- We already do.
- N/A
- Sure. Some components that agencies may want to take the lead in, is measuring the cost of actions that can be taken compared to true cost of those actions not being taken. Attempting is an important component of a public message campaign, especially for those that are fiscally reserved.
- Yes.
- We would love to because it impacts the quality of life but it is one of the areas that we don't have the resources to support it. (He is unaware of the green business program)
- N/A
- We would participate with agencies when we can by providing a setting for education.
- Yes.
- Probably not.
- I'd be happy to bring it forward to the landscape contractors association.
- Yes as long as it is sold as a benefit to everyone;

**c. What public outreach tools does your agency/organization use to communicate**

- No response.
- See samples.
- No response.
- Newsletter articles. From time to time we've testified at permit hearings and city council meetings.

- Workshops with master gardeners and composting workshops. High school science program. Tomato Festival (the booth doesn't seem too effective). Coastal Clean Up, it's very important and a common goal.
- Posters, brochures, ABTV (an internal TV system). We also sponsor Green Week and recycling events.
- We do lots of water conservation school programs with school posters, stickers, pencils, low flow showerheads and toilet kits. We also have water quality and drinking water websites.
- We work with other districts at events. The city has watershed partnership groups. They have existed now for one year.
- Events, the county fair, one-on-one, creek restoration, website, brochure.
- N/A
- Surveys, storm drains display, tabletop display, brochures, storm and sanitary outreach. We have a booth at the Fly Away [?] Festival and we also do other events.
- County Fair workshops, Earth Day participation, stenciling, oil and grease recycling and we sponsor waste cleanup.
- Newsletters, events, email.
- Stormwater presentations, events like art in the park, booths, we've developed a mercury brochure and BASMAA IPM display.
- Newspaper, purchase ads. Sometimes we're bonused ads. Get local access. We rely on our membership. Also use email. Send newsletter and faxes to members. We reach all businesses in Concord over the course of the year - both members and nonmembers.
- N/A
- The local Art and Wine Festival during the summer and the Park and Recreation Department at local cities.
- N/A
- None.
- We use different periodicals, speak to community associations and publish a newsletter.
- Everything – advertising; seminars; schools

**18. We would like to add your name to our list of key people who would like to stay informed about BASMAA's Regional Advertising Campaign effort. Is that all right with you?**

Yes 13 No \_\_\_\_\_

- Yes
- Yes
- Yes
- Yes
- N/A

- Yes
- Yes
- N/A
- N/A
- N/A
- Yes, and put our policy director on it too
- N/A
- Yes
- Yes
- Yes
- Yes
- Yes
- Absolutely.
- Yes

**19. Are there other individual, organizations or community groups whose input would be helpful to use as we plan our regional advertising campaign? Yes 14 No 2 Who?**

- The local Chamber of Commerce.
- Developers and real estate associations.
- Environmental justice coalition for water.
- The Audubon Society, Silicon Valley Toxics Coalition sustainable water, SF Bay Keeper, Northern California Chapter Federation of Fly Fishers, Bay Area Pollution Prevention Group (BAPPG).
- Cargill Salt, Goelitz Chocolate and Jelly Belly.
- City Public Works Directors and Planning Directors.
- Santa Rosa.
- Regional Water Quality Board.
- EPA.
- East Bay MUD.
- Add the address for our Hispanic Chamber of Commerce Board of Directors.
- City of San Ramon.
- Walnut Creek Chamber.
- Contra Costa Council.
- Executive Director of the Contra Costa Council Staff.
- Greenbelt Alliance and Save Mt. Diablo.
- CLCA (California Landscaper Contractors Association).
- Public Works – recycling coordinator for Vallejo.

## APPENDIX D

### Bay Area Stormwater Management Agencies Association Business Responses Only

1. First I am going to list some major issues facing the Bay Area today. Please tell me what you think are the top three issues.

<p><u>  2  </u> Water Supply</p> <p><u>  4  </u> Economy</p> <p><u>  1  </u> Growth/Urban sprawl</p> <p><u>     </u> Security</p>	<p><u>     </u> Water pollution</p> <p><u>  1  </u> Air pollution</p> <p><u>  5  </u> Transportation</p> <p><u>  1  </u> Environment</p> <p><u>  4  </u> Other</p>
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- Political leadership
- Housing
- Cost of housing
- I can't think of a third

2. Do you think there is a link between air pollution and water pollution?

Yes   6   No   2   Why?

- Somewhat. If we get smog in the air it will come down into the water.
- Yes, but there is more of a link between air pollution and transportation. Cars put a lot more stress on the environment, all gas power vehicles do. A lot of people don't know about the environmental connection.
- The perpetrators are polluting the air – refineries and business; industrial area.
- Yes, pollution in the air could land in the water.
- No.
- In the Bay yes. It's all a part of the same process.
- No. I don't see a direct link.
- Yes. I'm a chemical engineer and research scientist. I know air chemical reactive systems.

3. We would like to ask about your knowledge of stormwater management in this region.

**Who is responsible for it?**

- I don't know. Is it individual cities and counties?
- The County.
- N/A

- San Francisco, East Bay Municipal Water District, RWQCB.
- The city.
- The Public Works Department. There is a greater authority who sets the policy. They are a regional group, but I can't recall their name.
- Bay area water quality board; Air quality management
- The Regional Water Quality Board. I'm a permittee.

#### **How is stormwater collected and where does it end up?**

- It goes down creeks and city sewer systems and ends up in the Bay.
- The stormwater line is used to collect in a separate system. It is then released into several systems and released to the Bay.
- It is collected through the drains in the street and goes out to the Bay.
- Some of it goes to culvert, then to creeks. Some of it goes to the sewer then to a treatment plant.
- The technicalities I don't know. But I do know that the new permit may mean expansive new requirements for business.
- There are drains. Some goes to the Delta.
- A lot of goes right to the Bay. Sewage is treated. Other discharge (like that from manufacturing plants) has to be treated first through a treatment plant. Then it goes to the watershed.
- No not specifically. From the streets and ends in bay.

#### **How is stormwater management financed?**

- By taxes from the State.
- I don't know.
- Through state and local agencies with taxes and permitting money.
- I have no idea.
- Different districts are created and taxes are assessed.
- Probably taxes or bonds.
- Permittee fees and general funds.
- Property taxes.

#### **4. Now I'm going to read four statements. In your opinion, which statement best describes stormwater in this region?**

- |    |  |          |
|----|--|----------|
| a. | It is a problem needing a solution.    | <u>1</u> |
| b. | It is a resource being well managed.   | <u>1</u> |
| c. | It is a link to environmental quality. | <u>4</u> |

d. It is a "Top Ten" priority. 1

- N/A

**5. Have you heard anything about the presence of water pollution problems in our region?**

Yes 6 No 2

**What have you heard?**

- Arsenic is way overblown. I know there's talk about contamination of groundwater with MTBE gas tanks, but the politicians just want to blame the oil companies. I've heard about runoff in the South Bay. Aren't there heavy metals in local estuaries? But it's not their fault.
- About the gas addition and MTBE. There are stricter regulations coming across for larger industries. We had certain restriction in place since the 1800s.
- I have lived here for 26 years don't recall hearing or seeing anything on pollution. We don't have a problem.
- I've read in the newspaper about the need to be careful with motor oil, not to put it in drains and to be careful with discharge from vehicles.
- I know about the refineries. I also know we use reverse osmosis in the treatment plants.
- You can't eat fish and you shouldn't swim in the Delta.
- There is still pollution from factories that make computer components that is getting ion the Bay. There is also runoff from automobiles and trucks. A lot of pesticides, including fertilizers that are used get washed down drain. They are used near fresh water bodies like the local creek riparian areas.
- I've seen it floating in water – oil, sludge – where wildlife is – it jeopardizes our wetlands.

**Do you remember where you heard or read about it?**

- N/A
- From various media sources: TV, newspaper, discussions with OES, etc.
- It's not a topic of conversation at parties, etc... I haven't heard anything.
- From newspapers in the area.
- In this city we don't have a lot of manufacturing or industry. If you go to the north, where the refineries are, then you'll learn about it.
- It's out there. From people I guess.
- I read about it in the Bay Guardian. I'm also a member of the Bay Institute.
- I've seen it myself.

**6. Do you think the community understands the seriousness of water pollution in our area? Why do you say that?**

- I don't see it as serious. I define seriousness as health related and I see no evidence. All we hear about is parts per billion and trillion.
- No. I do know through observation that there is a lot of stuff being released from residential areas.
- No. I have seen neighbors put things down storm drains when they shouldn't. Our kids are aware of what pollutes and most of the public understand not to directly dump into drains, but that's it.
- I don't think so. People aren't very careful with their personal habits.
- This is not the issue they think about here. People only will begin to pay attention when it costs them!
- I don't know.
- No. Most people rely on government standards and think someone else is taking care of it. Homeowners point the finger at ag and landscape contractors for polluting with pesticides and fertilizers when it's the homeowners who use more.
- No. They don't think they venture out and see the hidden waterways

**7. What, in your opinion, are the principal sources of these water pollution problems?**

- Population.
- Residential areas, it's an unmitigated source.
- Runoff from streets and gas and oil from automobiles.
- Through our culverts, chemicals and other stuff leaks during rainstorms.
- Manufacturing and refineries number one, then Silicon Valley waste from computer screens second and third dumping oil. Having engines on you block.
- All the people, cars, and just living.
- There needs to better enforcement and penalties for business and incentives for doing the right thing.
- People dumping in the water, trash, oil, possibility big business with toxic runoff.

**8. Do you consider stormwater runoff to be a major source of water pollution in your community?**

Yes   4        No   4  

- No. Both places where I have lived the storm drains have been lined with concrete so it just goes into the Bay.
- Yes, there is an unmitigated source from residential.

- No, I have not read about it. I have no data on it.
- Yes, because of articles in the newspapers I know it's serious. A lot of people are not educated about the fact that one gallon of oil makes a lot of pollution!
- No. Our systems here watching for it are great. We have good recycling and HHW collection!
- No, not a major source, but partial yes. Then again everyone contributes. People like to congregate.
- I'm not educated enough to answer that. There is probably a good deal of it. I don't of any quantifiable measures to know for sure. I would say that in my area is a moderate to major source. In Marine we don't have a lot of manufacturing and non-point source pollution.
- Yes – dumping and runoff.

**9. Do you think stormwater runoff poses a major risk to the Bay area environment? Why?**

- No. There was a recent crab report and they are very healthy in our bay.
- Locally, yes. There are general algae problems and nitrates contributed by residents.
- It's not a major risk. It is a small risk because it [the water] is diluted.
- Yes, because of how much pollution there is.
- Somewhat, mostly from improperly stored chemicals.
- It is the same as it does for the community. It is not a major source, but again partially yes. Then again everyone contributes. People like to congregate.
- Absolutely. You can't fish. Everyone knows that you can't eat the fish out of the Bay. They still don't make the connection to their own individual actions.
- Yes, it totally messes up water life – destroys it.

**10. As you may know, street drains and gutters in the neighborhoods of our watersheds help control runoff from rain and landscape watering by directing most surface water flows into an underground storm drain system that leads to a creek, river, the Delta, the Bay and the ocean. Do you think people in your organization understand how the storm drain system works?**

Yes   7   No   1  

- Yes, they better. I teach them every year during our employee instruction. We are very proactive in environmental education.
- Yes
- Yes
- Yes
- No, only those who feel the cost.
- Yes
- Yes, I think they do.
- Those who work directly with sanitation knows, but in general no.



**11. We want to take a few moments and talk with you about watersheds. First, when you think about the watershed you live in, what is the first thing that comes to your mind?**

- Crystal Springs is an example of how the Hetch Hetchy Project has provided a long-term watershed for us.
- The lake.
- Water coming off the hills and coming under highways into your neighborhoods. The water percolates in the neighborhood. It brings in grainy soil and we have to pump it out.
- It needs to be cleaner.
- Communicate the economics of this issue. Business people understand facts about the interdependency of economic systems. Educate also about the interdependency between communities. Just because we don't have a problem doesn't mean we shouldn't care about what happens elsewhere.
- Something that stores water.
- Reservoirs.
- I don't know.

**WATERSHED DESCRIPTION**

**12. In your view, how would you describe the health of the watershed you live in? Why do you say that?**

- Okay.
- Overall my major concerns are ag and large residential areas. The water quality of homes and ag is worth more than the residential areas. I'm not sure of the health.
- It is pretty good. The neighborhoods are prominently residential. There is very little industrial so there isn't much pollution. I am sure it does pick up oil, grease, fertilizers and stuff but not as bad as industrial or farming. Industry is illegally pumping into the Delta and the Bay. My kids were water-skiing and were caught in it. There are farmers that dump fertilizers and pesticides directly into the Delta. It should be illegal.
- It's in poor condition, but we have seen some improvement in it. There are fish that we now see in our local creek.
- There is an absence of problems here.
- How healthy? I don't know. Would I want to drink the water? No.
- I think it's pretty health. I live in Marin and hiked up the watershed recently. I also live on creek. The last ten years the health has improved in terms of creeks and the watershed itself. There still is an issue of outflow into watershed from pesticides, fertilizers and heavy metals. On scale of one to ten, ten being the best, I would rate it at about a five. There has been a big push for creek health recently.
- Not healthy, because I have seen where the water accumulates in inlets, and it's filthy.

**13. Whose responsibility is it to protect the health of the watershed you live in? Why do you think that?**

- N/A
- The Regional Water Control Board and local EPA agencies assigned to water.
- Partnership of the City, County and State.
- The County. That's their job.
- Every citizen has a responsibility! At the chamber we know all businesses have a responsibility!
- The people that live in it. People are responsible for their own environment.
- Every individual person needs to own it.
- Everybody.

**14. What can we, as a community, do to address our water pollution problems and to protect our watersheds?**

- Change the rules.
- Awareness!
- Teach about vehicles and the need to properly dispose of oil and chemicals. Teach that exhaust from cars also impacts water quality. We need to get rid of MTBE.
- Education.
- Go grassroots. The effort must come from the bottom up rather than the top down. We believe in leading by example.
- Educate them. Go into the school system or whatever.
- Educate school children, it will ripple out at home. Go to businesses and get them certified, like with the Green Business Certification.
- More public info on what a watershed is and how it operates – how it will effect us – damages wetlands – what is the future of our watershed and quality of life – cities get together and imposing fines for those who violate the watershed.

**15. How can we help the public better understand the concept of a watershed? What methods would be effective in communicating these issues to the people in your organization?**

- N/A
- Get the local media to cover an issue. Do public outreach for kids. Educate them young. Also use print media.
- Use Hispanic television. Spanish speaking people watch TV. Work within our Hispanic Chamber. Have a presence at mixers and educational conferences. Participate in festivals for Cinco De Mayo and at the Concord Pavilion.

- Through public forums, press releases through local chambers, and the Contra Costa Chamber. Get a list of the Chamber in Contra Costa.
- Start with schools at the appropriate grade level so they will retain it. Teach in colleges. To reach working adults use newspaper (article or ad) and radio campaigns. Do not do any direct mail “DID YOU KNOW the watershed...blah...blah.” Make it interesting enough. Give it a good headline like “Affects of watershed in this community.” Personalize to the area.
- Educate in schools and as people move here give them something in their welcome package.
- Publish arts of interests. Public education piece that are put in the paper are great. People read their local paper. Community tool kits, handouts, etc. There is not going to be one silver bullet. You need to reach people on a lot of different levels. There also needs to be metrics. Every two to four years there are indicators on health. Have quantifiable measurements done on the health of the watershed and publish it.
- Go to schools and teach kids in science. Produces PSAs for the public – it hasn’t been brought up as an issue yet. Displays at libraries.

**16. In your opinion, what is the best method to educate and inform our community about the importance of watershed related issues including water pollution prevention practices?**

- N/A
- Punishment. People will listen if a residential area got a fine due to pollutants. It would be negative publicity, but it would have positive affects.
- Do it by direct mail to all residents. Keep it short, sweet and to the point. You can also do a quarterly newsletter or activity guide. Put something in those and do a special postcard mailing.
- Television during these times and shows: soap operas, 4-6 pm, and 6-8 pm. When families are watching together.
- Work through E-DAB (East Bay Development Alliance for Business). Go for worse case scenarios in your approach. Give us the facts. Don’t be touchy, feely in your approach. Keep it non-political. Emphasize quality of life. Keep it simple. Do a one pager emphasizing the economic benefits like, “Do this...Save \$X.XX and help the environment.” Link it to where they live and work.
- Mailers and newspapers.
- Multilevel public relations outreach through interesting stories in the paper. You can also go to county fairs, schools, etc. Hit on it everywhere we can. It would be helpful to let people know what the condition of watershed is. Create a water pollution index. Have some kind of metrics. We need clear environmental goals.
- Get it out to public to get their attention – pictures speak 1000 words. Creative advertising and see what the end results of a watershed is and then have dialog – brochures, government agencies do public education. People don’t even know who to call. Educational forums.

**17. Do you feel it is important to have interagency collaboration on the protection of watersheds?**

Yes 6 No 1 Don’t Know 1

- No, all the agencies want to do is blame business and industry for everything.

- Yes. Look at the global picture. As a person who deals with regulation reduction it is good to have people from other agencies and get them to contact each other.
- Yes, with more than just one agency there is no duplication of efforts and it adds resources.
- Yes. We do more when we work together.
- I'm not sure.
- Yes. Share data with each other.
- Yes, very much so. That is key.
- Yes – it all ties together. They have money and staff to advertising. Mass joint effort.

**a. Which agencies would you suggest to partner with BASMAA or your local stormwater pollution prevention program?**

- N/A
- The Air District.
- I don't know which agencies you can partner with.
- I don't know.
- N/A
- The municipal water purification plants and sewer treatment plants.
- All public works. Stormwater Pollution Prevent Projects, the county government planner, water districts, sanitary districts.
- Code enforcement, county health and safety, fire prevention, fish and game, municipality, recycling coordinators.

**b. Would your agency participate in or co-sponsor events on stormwater quality and/or watershed awareness?**

- N/A
- In general outside activities is difficult. People get way sensitive. We would need to really look at it.
- We would love to because it impacts the quality of life but it is one of the areas that we don't have the resources to support it. (He is unaware of the green business program)
- N/A
- We would participate with agencies when we can by providing a setting for education.
- Probably not.
- I'd be happy to bring it forward to the landscape contractors association.
- Yes, as long as it is sold as a benefit to everyone.

**c. What public outreach tools does your agency/organization use to communicate**

- N/A

- Posters, brochures, ABTV (an internal TV system). We also sponsor Green Week and recycling events.
- Newspaper, purchase ads. Sometimes we're bonused ads. Get local access. We rely on our membership. Also use email. Send newsletter and faxes to members. We reach all businesses in Concord over the course of the year - both members and nonmembers.
- N/A
- The local Art and Wine Festival during the summer and the Park and Recreation Department at local cities.
- None.
- We use different periodicals, speak to community associations and publish a newsletter.
- Everything – advertising, seminars, schools.

**18. We would like to add your name to our list of key people who would like to stay informed about BASMAA's Regional Advertising Campaign effort. Is that all right with you?**

Yes 8 No 0

- 19. Yes
- 20. Yes
- 21. Yes
- 22. Yes
- 23. Yes
- 24. Yes
- 25. Absolutely.
- 26. Yes

**19. Are there other individual, organizations or community groups whose input would be helpful to use as we plan our regional advertising campaign?**

Yes 5 No 3 Who?

- No
- No
- No
- Cargill Salt, Goelitz Chocolate and Jelly Belly.
- East Bay MUD.
- Add the address for our Hispanic Chamber of Commerce Board of Directors.
- CLCA (California Landscaper Contractors Association).
- Public Works – recycling coordinator for Vallejo.