

**Assessment of
Maine's Stormwater Phase II &
NPS Outreach Campaign
2003/2004**

or

**Who is Willing to Protect
Maine's Water Quality?**



www.thinkbluemaine.org

February 2005

By Kathy Hoppe, Maine Department of Environmental Protection

Edited by Barb Welch, Maine Department of Environmental Protection

Executive Summary

Maine DEP's first project to be completely based on social marketing principles was a great success. And we have the data to prove it! The *Think Blue Maine* campaign successfully caught the attention and conveyed our message to 14.4% of Maine adults! And almost a third (32%) of Maine's adults say they plan to or have taken action to protect water quality.

We used market research to set the direction for the state's outreach effort, to implement the campaign and to evaluate it. We ran focus groups to learn about our audience – what did they think about the quality of their local waters, what was causing problems and what practices would they be willing to undertake to protect water quality. We also tested messages and specific ads. In addition, we did a pre-survey of 3600 municipal employees throughout the MS4 (Municipal Separate Stormwater Sewer Systems) communities on their depth of understanding of “watershed” and “runoff”. The survey also asked about sources of pollutants and current household and yard practices. We used this data to further define our audience and our outreach campaign.

We targeted those most receptive to environmental messages and most likely to act: 35-55 year olds residents with some college education. We chose a message that conveyed how stormwater gets polluted and the route it takes to local waters – 2 messages that we knew our audience needed before they could be expected to take actions to protect water quality.

The 36 regulated MS4s, Maine DEP, and other state agencies formed a statewide partnership. We purchased TV and radio time to insure our message got out when and where we needed it. The ads and media buy were well directed, successfully reaching our target audience in greater numbers than those not targeted.

We hired an independent market research firm to conduct statistically valid phone surveys before and after the campaign to measure our effectiveness. Over 14% of Maine adults recalled images or specific messages from our ads. Most marketing campaigns aim for a 5-10% recall so our effect was significantly above that threshold. When prompted with clues, 66% of Maine adults recalled the TV ad and 40 % recalled the radio ads.

One issue that we were particularly eager to improve was public awareness that soil is a pollutant. In 1996 when we started asking what is polluting our waters, no one mentioned soil; now 6% mention soil.

To capitalize on these successes, our Partnership needs to orchestrate a second year of mass media, while at the same time working locally to encourage individual BMPs and sustainable behavior change.



Creating a Statewide Partnership

Maine has 28 Regulated Small MS4 communities and 8 nested entities that are required to implement the federal (National Pollutant Discharge Elimination System aka NPDES) Stormwater Phase II portion of the Clean Water Act.

The MS4 General Permit was created by the Maine DEP using a Stakeholder process. Groups were formed around the 6 minimum measures with Education & Outreach being combined with Public Participation. The State Stormwater Coordinator pulled the recommendations of all the stakeholder groups into the final General Permit. The Outreach and Public Participation Stakeholder group was co-chaired by Barb Welch and Kathy Hoppe. They applied the knowledge of effective outreach and social marketing gained from the NPS program to the Stormwater program.

Maine's Stormwater General Permit appears to be unique because it requires – not just efforts at education but also requires **behavior change** and **impact evaluation**. Municipalities must set measurable goals/outcomes for changes in one behavior (e.g., increase in the amount of motor oil recycled instead of dumped on the ground or down storm drains or decrease in the amount of pesticides and fertilizers that lawn care services apply). The stakeholder group accepted that success would be measured by behavior change; not by the number of brochures sent out.

The MS4s are encouraged to evaluate their process (budget requirements, schedules, staff resources, and tasks or activities) to help them implement their program better, but beyond that program evaluation, success is measured by the impact the program has on changing behavior. To determine the success of their MS4's effort, they need to measure the impact. Did their program lead to the behavior change they had hoped? If yes - what steps do they need to take to maintain the new behavior? If not, they need to adjust their program and try again.

Steps leading to the 2004 Campaign

1) Data gathering

An important element of social marketing is that in order to be effective, one must understand the target audience. Focus groups are one way of gathering this information. Thus DEP's first step was to convince the regulated communities of this value. We then hired a professional marketing company to conduct four focus groups in the summer of 2003. The results from the focus groups were used to design the outreach campaign. They are available on DEP's web site <http://www.maine.gov/dep/blwq/docstand/stormwater/refmarketresearch1.pdf>

The focus group results illustrated that the majority of Mainers have no idea what a watershed is, where stormwater goes, or what is polluting the water in their neighborhoods. These results are confirmed by previously conducted NPS focus groups and statewide phone surveys. The market research firm concluded, after reviewing the focus group results, that we needed to start with a basic statewide awareness effort.

As part of the focus group sessions, the consultant showed a number of PSAs that were produced by Stormwater Phase I communities. Our goal was to test the various styles and approaches in order to pick the one that would be most effective with Mainers. We found that the San Diego 'Fowl Water' (rubber duck) ad was the one that really caught our focus groups' attention and conveyed the stormwater message.

With the help of the regulated MS4s, we conducted a survey of municipal employees (3600 were returned) in order to gain more information on what residents thought about local water quality and what pollutes it. We also were interested in what actions around the home they currently practiced and what changes or actions they were willing to take. We designed the survey so it would also aid in assessment. We intend to repeat this survey from time to time to evaluate our progress and adjust our efforts. (See Appendix A for a copy of survey and results)

The results of this survey confirmed the findings of the focus groups. Mainers fail to understand the path of stormwater with 34.4% thinking that all of the precipitation that lands on their yard soaks into the ground, while 17.4% were unable to guess what happens to the precipitation. A little over 7% believe the stormwater and sanitary sewer systems are the same thing, 3% think the stormwater is treated and 62% had no idea where the stormwater goes. "Watershed" continues to allude most residents with only 21.2% claiming they live in a watershed, 17.4% indicating they don't know where the rain water goes or weren't willing to guess, while 34% said it all soaks into the ground and doesn't leave their property. The municipal employees are a good representation of our target audience as 59.8% are between 35-54, and 52.6% have a bachelor degree or greater.

2) Social Marketing Training

DEP staff believed that understanding social marketing would be of great value to the MS4s as they undertook measures to fulfill the requirements of the General Permit. Working with EPA, we were able to offer a day of social marketing training to the MS4s. EPA funded Tetra Tech, the consultant who developed the *Getting In Step Guide* (<http://www.epa.gov/owow/watershed/outreach/documents/getnstep.pdf>), to provide a training session. We held one meeting statewide inviting both MS4s and our NPS project sponsors. The *Getting In Step* training was very well received.

This workshop proved to be the catalyst for getting the groups of communities to propose to work cooperatively on a media campaign. One of the participants then suggested that if half the regulated communities were willing to work together, why not all the regulated communities? The Stormwater coordinator, David Ladd, made it a priority to lobby all the regulated small MS4s to participate in a statewide mass media campaign. It was his job to sell the benefits of participating in such a program.

One result of the group training session was the realization that they, the MS4s, would save money if they worked cooperatively on a statewide outreach effort rather than as individual municipalities. They also believe that working together as clusters of communities they have a better chance of successfully obtaining behavior change.

3) Developing a proposal for an effective mass media campaign

When we reconvened the MS4s and their consultants in November 2003, The MS4s suggested that everyone cooperate in a statewide awareness effort. The effort would be a partnership between DEP's NPS and Stormwater Programs, the MS4s, and Maine's Dept. of Transportation, Turnpike Authority, Universities, Bangor Air National Guard, Coastal Pro-

gram and the Portsmouth Naval Shipyard. The meeting included working out a fair funding formula.

DEP NPS staff could easily see the synergism of working on water pollution issues with the Stormwater program. Thus money, staff time and resources from the two DEP projects were combined to create a larger, stronger and more effective effort. This also addressed a common complaint by the general public that they hear so many messages they don't know where to start. Together the NPS & Stormwater Programs would be presenting the same message, hopefully increasing effectiveness.

Based on the results of the market research, our target audience was 35 - 55 year old residents. Focus group results have shown this group as being the most concerned and the most willing to take action to protect water quality.

Our message was that polluted stormwater hurts local water quality and that homeowners and renters can make a difference. We knew from the focus groups that we would have to explain the path that stormwater takes as well as what pollutes runoff.

The proposal included

- ◆ Obtaining permission from San Diego to use their ad and revising it to fit Maine,
- ◆ Creating 2 new radio spots and modifying 2 existing soil erosion campaign radio spots to have a similar tone,
- ◆ Creating an identity (logo and slogan) for the partnership and campaign,
- ◆ Creating a web site that would be the single point of contact for the public in the ads that were funded by 28 municipalities and multiple state and federal agencies,
- ◆ Designing a print piece that the MS4s could use to support the outreach effort,
- ◆ Purchasing media time,
- ◆ Getting media coverage of stormwater issues,
- ◆ Hosting/Supporting local events and activities to engage residents,
- ◆ Contracting with a firm to handle production and the media buy, and
- ◆ Evaluating the effort.

The Campaign

In the spring of 2004, the partnership hired Burgess Advertising to oversee production of the TV, radio, and print piece, do PR for stormwater issues, and purchase airtime.

Maine's MS4s are clustered in 4 areas in the central and southern part of the state. Since we wanted a statewide effort, DEP contributed funds to take the effort statewide, while the MS4s raised the money to cover their part of the media buy.

We hired Market Decisions to help evaluate the campaign. Market Decisions conducts a quarterly, statically valid, omnibus, phone survey of Maine adults. We put questions on the spring survey prior to the campaign and again in the fall after the campaign.

As part of the campaign, the steering committee worked to develop a logo and slogan. Burgess donated staff time to develop the final logo and slogan (Think Blue; Clean Water Starts with You). The University of Southern Maine with pro bono time from Aquarian Engineering, a consultant for some of the MS4s, created the web site (www.ThinkBlueMaine.org). The Maine State Planning Office, Coastal Program and DEP helped cover some of the costs of developing it. This website would be the single contact point in the ads.

The radio and TV ads started to air in July and ended in October. The buy was staggered to give the appearance that the campaign occurred longer than it actually was. Radio aired the weeks of 7/26, 8/2, 8/9, (skipped 8/16), 8/23, 8/30 through 9/2/2004. Maine Public Radio sponsorship aired 13 weeks (8/5 through 10/28) on Thursdays around the evening news. TV aired 5 consecutive weeks (7/26 - 8/23); buys included some weather sponsorships. Both TV & Radio stations provided bonus time since we were a non-profit. (For more details on the media buy see Appendix B.)

The steering committee decided they wanted a general brochure as the print piece, though DEP staff did not agree. We had hoped for a more strategic marketing approach to choosing the print piece (who was the target, distribution method, desired effect ... and then pick the tool). However, we have proceeded with development of a brochure. Burgess developed a draft. A final brochure has not yet been completed. Before it is finalized, we are testing it along with other stormwater brochures with our target audience and will adjust it accordingly.

One element of the campaign that did not proceed as planned was the local events and activities that we encouraged the MS4s to undertake as a way of bringing the campaign "home" to the target audience. Mass media is good for raising awareness and making the target audience sensitive to stormwater issues. Our advice to the MS4s was that while the TV & radio ads were running they should host/support local events to re-enforce the message and encourage BMP use.

People usually need more than information to change their behaviors. They need face to face convincing such as getting involved monitoring a stream, stenciling storm drains, or joining a neighborhood clean-up effort. Some activities were held (e.g.; 2700 stormdrains stenciled in S. Portland, Open Houses at Sewage Treatment Plants and municipal garages to see best management practices, Stormwater fairs at local schools, ...) only about half of the regulated entities held an event which was not as many as we had hoped.

The budget for the project is in Appendix C.

Results

We used the Market Decisions statewide telephone survey to assess the effectiveness of the media campaign. We wanted to know 1) whether Mainers saw or heard our ads, 2) got the message that polluted stormwater hurts local water quality, and 3) of lesser emphasis (since we did not expect to influence behavior change with mass media) whether they took any actions to protect water quality as a result of our campaign.

Most follow-up surveys are conducted within a week of a campaign which maximizes the recall of viewers to what they have seen or heard. However, since we were on a limited budget, we choose to do both the before and after surveys as part of the Market Decisions' omnibus survey. Hence the fall survey was conducted almost 2 months after the last ad aired. Traditional evaluation is also done as a stand-alone survey with all questions related to the subject. Results show that an omnibus survey may give lower results since people have to switch gears when answering the variety of questions.

For a list of the questions that we used, see Appendix D.

Note: Southern Maine is Cumberland & York counties; Coastal is Sagadahoc, Lincoln, Knox, Waldo & Hancock; Central is Androscoggin, Oxford, Kennebec & Franklin; and Northern is Aroostook, Penobscot, Washington, Piscataquis and Somerset.

The sampling error for the survey is plus or minus 4.9%.

- ◆ 30% of respondents said they remembered an ad on water quality.
- ◆ When those 30% were asked what they had seen or heard, 19% specifically mentioned rubber ducks; an additional 29% mentioned stormwater or the pollutants mentioned in our ads. *If we want to tease out how many of the 19 % also understood the message, in the future we should do a follow-up question and ask "What was the ad about?"*
- ◆ So approximately 14.4% (135,283) of the adult Maine population recalled seeing or hearing our ads about water pollution. *Most marketing campaigns aim for between 5-10% recall, so our effort exceeded the normal goal.*
- ◆ 15-16% of 18 to 49 year olds recalled seeing or hearing ads about water pollution while 12% of the 50-59 year olds recalled something and only 8% of those over 60+.
- ◆ Approximately 17% of those living in Coastal and Northern Maine recalled seeing or hearing our ads, while only 14% of those in Southern Maine and 10% in Central Maine. *(17 & 14% are not significantly different, however Central Maine is significantly lower than Coastal & Northern Maine).*
- ◆ Those with an annual income of \$30K-\$60K and \$60k+ (14%) are more likely than those with an income of less than \$30K (10%) to have seen, heard or read any advertisements regarding water pollution. *Note sampling error is 4.9% so this is not statistically significant.*
- ◆ Those who have a college education and above are more likely to correctly recall having seen or heard advertisements regarding water pollution (23%) than

those with some college (15%) and almost 3 times more likely than those with a high school education or less (8%). *We know from other research that those with less education are less likely to be concerned about water quality and are less likely to believe stormwater has an impact on water quality. So did the ads just not speak to them? Or could it be they have other more pressing issues to worry about? (Approximately 51% of Maine adults 25 years and older have a high school education or less. For information on Maine demographics see Appendix D.)*

- ◆ Of those who said they had heard or seen an advertisement about water pollution, those 60+ were least likely to identify our ads (27%) as compared to 40-49 year olds (63%), 18-29 year olds (62%), 50-59 year olds (48%), and 30-39 year olds (44%). However, the 18-29 year olds identified the ads by mentioning the rubber ducks and never specifically said stormwater. While 30% of the 40-49 year olds specifically said stormwater, 19% of the 50-59 year olds, 10% of the 30-39 year olds and 8% of the 60+.
- ◆ From past focus group and phone survey research, we found the audience that is the most receptive to environmental messages and most likely to act are more educated, have higher incomes, and are between 35 and 55 years old. So it appears from these results we are still focused on the best target audience to achieve our goal of behavior change. The rationale behind picking the easiest audience first is that they will help set the standard, the social norm, in the local community. That standard will then spread to others with little additional resources.

2) If we gave prompts, who remembered our ads?

- ◆ 66% (620,029) of Maine adults recalled seeing our TV ad when asked if they had seen or heard anything about stormwater pollution that featured rubber ducks.
- ◆ When prompted 76% of the 40-49 year olds had, 69% of the 50 to 60+, 63% of the 30-39 year olds, and 52% of the 18-29 year olds. *With the highest recalls in the age bracket 30-60 and the lowest recall in the 29 and younger adults, the TV buy seems to have been well directed at our target audience (35-55 year olds).*
- ◆ There was no significant difference between male and female viewership.
- ◆ 74% of those living in Northern Maine recalled seeing a TV ad with rubber ducks, 69% of Southern Maine residents, 64% of Central Maine and 51% of Coastal Maine residents.
- ◆ 40% (375,775) of the adult Maine population recall hearing the radio spots when prompted about every day activities running off, going down stormdrains and polluting water.
- ◆ 52% of adults ages 40-49 recalled hearing one of the radio ads, while 42% of the 30-39 year olds, 40% of the 50-59 year olds, 36% of the 18-29 year olds and 33% of those over 60. *The Radio buy seems to be on target for our audience target of 35-55 year olds .*

- ◆ 45% of Northern Maine residents recalled hearing a radio ad, 43% of Coastal residents, 41% of Southern residents and 33% of Central residents. *Statistically speaking, with the exception of Central Maine, it appears the radio buy produced even results across the state. We may want to adjust a little for Central Maine.*
- ◆ Among those who could recall (without prompting) seeing or hearing the ads regarding water pollution in the past 30 days, men were more likely than women to recall an ad (20% vs. 9%). However, with the aided question men and women equally recalled an ad (67% vs. 66%). *While not clear cut, it does appear the ads were not as effective at reaching women as men. Women did not remember them as well. As evidenced by the equal recollection of men and women with prompting, we know that women have seen the ads, but they did not make as strong an impression on women.*

3) Who will take action?

- ◆ 26% or just over a quarter of the adult Maine population said they have or are likely to take action to reduce stormwater pollution.
- ◆ 36% of the 40-49 said they have or will take action to protect water quality, 35% of the 50-59 year olds, 29% of the 30-39 year olds, 18% of the 60+ and 20% of the 18-29 year olds have or plan to take action. *Once again, our data confirms that we are targeting the correct demographic with the greatest number of people willing to take action in the 30-59 year old age group.*
- ◆ Of the actions the respondents mentioned (careful with petroleum & chemical products, control runoff, don't litter, ...) to protect water quality, there was no statistical difference between what men and women said except men more often mentioned being careful about oil leaks and chemicals (8% vs. 3%).
- ◆ The greater the income, the more likely the respondent was to have said they have taken or planned to take action to protect water quality (\$60K+ - 29%, \$30-60K - 21% and less than \$30K - 15%).
- ◆ The more education the respondent had, the more likely he or she was to have said they have taken or planned to take action. (College and above 26%, some college 23%, high school or less 15%).
- ◆ 25% of Southern Maine residents said they had or would take action to protect water quality, 22% of Central residents, 17% of Northern residents and only 11% of Coastal residents.

4) What do our residents think about water quality?

- ◆ There was no significant change before and after the campaign on the number of adults who think stormwater has a major impact or somewhat of an impact on water quality (83% after, 80% before). *With eighty percent or greater already believing stormwater has an impact on water quality we do not need to spend much more effort convincing Mainers that stormwater has an impact. However we may need to convince them that they, via stormwater, may have a greater impact on water quality than industry. In addition, it may be difficult to move the remaining 20% with mass media.*

- ◆ In the before survey in April, when asked how concerned the respondent was about water quality, 76% were somewhat or very concerned and in October 82% were. This is a significant difference. *We can't claim that our campaign was the sole cause of this change but it is highly likely that it was a factor since a high percentage remembered seeing or hearing the ads. In addition to our ads, there were many messages throughout the summer talking about water quality. There were ads or news stories about healthy beaches, fish consumption & mercury.*
- ◆ After the campaign, the college educated were the most likely to be concerned about the quality of our waterways (87 %) while those without a college education were less concerned (79%).
- ◆ Before and after the campaign, men and women were equally concerned about the water quality of our waterways (before: 77% men vs. 75% women; after: 79% men vs. 83% women).
- ◆ Before the campaign, more women than men believed that stormwater had an impact (83% vs. 76%). After the campaign women and men had equal beliefs about the effect of stormwater on water quality (83% vs 84%).
- ◆ 6% of the adult Maine population identified soil erosion as a source of water pollution. When the question was first asked in 1996, prior to any outreach effort on NPS & soil erosion, no one ever mentioned soil erosion. *The increase from zero to 6% awareness, unprompted, can not be contributed solely to the mass media outreach over the past 8 years. Rather it is most likely a combination of the mass media, the NPS Training Center, the Erosion & Sediment Control Law, newspaper articles, DEP's In Our Backyard column, and booths at fairs/events. For more information on Maine's campaign to reduce soil erosion, see <http://www.maine.gov/dep/blwq/watersh.htm>*



Web site:

We also used the number of hits on our web site to measure the effectiveness of our campaign. Web site hits is an indirect measure since our goal was not to increase hits but to raise awareness. The primary purpose of the web site was to be a common funnel for residents who wanted more information. So hits on the web site showed the number of people who were interested in the subject and paid enough attention to remember the URL address.

| | |
|------|---|
| July | 674 (first radio & TV ad airs 7/26) |
| Aug | 2,397 |
| Sept | 242 (last TV & radio ad aired Sept. 2) |
| Oct | 295 (last Public Radio sponsorship ad Oct. 28 th) |
| Nov | 234 |

Conclusions/Recommendations

The campaign was successful in getting the attention of Maine adults so that 2 months after the end of the campaign, of those surveyed, 14.4% of Maine adults or 135,279 adults remembered the ads and the message. 8.7 % or 81,731 adults said the ads were about stormwater runoff or pollutants in water; 5.7% or 53,548 adults said they saw an ad with rubber duckies.

We measured that a third (32%) of Maine's adults say they have taken or plan to take action to protect water quality. We can not credit this campaign with all that. Time and again, surveys show Maine has environmentally concerned citizens which includes water quality issues (80%+ said they were very concerned to somewhat concerned about water quality.) Therefore, we don't need to spend time selling them on the idea they should care about water quality, rather we should spend time educating them on sources of water pollution and what actions they can take to protect water quality.

We did not expect to get much behavior change with a mass media campaign. The mass media was to raise awareness and sensitize our audience to start thinking about actions. The local events and activities hosted or supported by the MS4s are the stage where we will see the behavior change begin to take place. The regulated communities need to persuade about 15% of their community to take action (based on the social diffusion model). After that the social norm will begin to change and more residents will see the new practices as the new standard and begin to follow suite.

We spent approximately an equal amount of money on radio and TV, but it is not possible to determine if radio or TV was more effective. They worked together re-enforcing each other. Results of the research shows that twice as many respondents remembered the TV ads over radio. But it is common for respondents not to remember accurately where they heard, saw or read something. For example, four years ago, the soil campaign registered a significant number of adults who saw ads on TV when we only ran radio.

The TV market is very fragmented with cable and satellite. The best place to buy TV media time is during the local news as people tend to watch their local news stations for that particular program even if they tend to watch cable or satellite otherwise.

It is easier to target specific markets with radio. Burgess felt that Maine Public Radio was not the most effective way to get out our stormwater message. It basically put the Think-BlueMaine partnership name and web site out there but without any message.

Comparing aided and unaided responses based on geographic locations, Northern Maine appeared to recall seeing or hearing the ads the most, followed closely by Coastal and Southern Maine. Central Maine recalled the ads the least. The media buy was equally effective across the state with the exception of Central Maine area where there was a minor drop. If the campaign is run a second time, the media buy for the Central region of the state should be adjusted.

Looking at the effectiveness of the campaign on men and women it appears we were more effective at reaching men, although this is not completely clear cut (unaided questions shows significant difference, but aided question shows no difference).

We successfully hit our target audience with the 30-55 year olds significantly recalling our campaign better than those younger or older. And the responses showed that that is still the best target for our campaign – they the ones most interested and most willing to take action.

DEP and Burgess recommend, if possible, running a second year of the radio & TV to reinforce the stormwater message. The media buy, given the state financial status, should focus on the specific MS4 regions rather than statewide. At the same time, there should be local programs, events and activities encouraging individual BMPs to help move people to behavior change.

Specific Recommendations

- ◆ Raise enough money to continue some mass media with existing ads.
- ◆ Sponsor weather segments on TV and radio.
- ◆ Place articles, event notices and ads in targeted sections of papers (i.e.; fishing section, home improvement).
- ◆ All the Partners should use the Logo & Slogan in publications, displays, etc.
- ◆ Keep all print pieces similar in look: color, graphics, general message to promote synergy – anyone seeing one piece will more easily relate/understand the next message when they see a poster, display, ad, etc.
- ◆ Improve web site using Outdoor Heritage Fund support.
- ◆ Continue the social marketing approach:
- ◆ Encourage the use of *Getting In Step* when developing & conducting outreach efforts
- ◆ Encourage a neighborhood approach to sustainable behavior change.
- ◆ Consider barriers and benefit for target audience – what's in it for them.
- ◆ Pick easier practices first to encourage the early adopters.
- ◆ Use visible practices or rewards to help create a change in the social norm in the neighborhoods.
- ◆ Evaluate.
- ◆ Tweak and keep going.
- ◆ Continue DEP support for the MS4s as they implement Education & Outreach for Phase II.

Appendix A

Municipal Survey

Next 4 pages.

Sample size 3595.

Survey

To help guide Maine DEP and your municipality's efforts to protect the waters in your town (neighborhood), we will be, from time to time, surveying municipal employees to see how we are doing. Your responses will be used (in) to guide(ing) our programs.

Note: The sample size is 3595. All numbers reported as percentages.

| | | | | | | |
|---|---|------------------|-------------|-------------|-------------|-------------------|
| 1 | For each of the items below, please indicate how clean you think the water is. (Mark one box for each item.) | | | | | |
| | | Excellent | Good | Fair | Poor | Don't know |
| | In my opinion the water in the small streams in my neighborhood is | 7 | 41 | 24 | 6 | 20 |

| | | | | | | | |
|---|---|---------------------------------------|---|---------------------------------------|--------------------------------------|-----------------------|-------------------|
| 2 | In your opinion, how much of an impact does each of the following have on how clean is the water is in your home town. (Mark one box for each item.) | | | | | | |
| | | Severely affects water quality | Moderate effect on water quality | Slight effect on water quality | Does not affect water quality | Does not apply | Don't know |
| | A. Pet waste | 7.3 | 14.4 | 30.4 | 21.2 | 5.7 | 18.9 |
| | B. Fertilizer | 23.6 | 27.0 | 48.8 | 7.3 | 3.9 | 16.0 |
| | C. Industrial discharges | 33.5 | 17.3 | 12.4 | 8.0 | 9.6 | 17.2 |
| | D. Little or no natural vegetation along stream corridors | 17.4 | 21.7 | 18.1 | 10.9 | 8.5 | 20.5 |
| | E. Municipal wastewater discharges | 19.9 | 19.1 | 17.3 | 9.1 | 10.9 | 21.2 |
| | F. Pesticides | 31.0 | 21.2 | 17.2 | 5.5 | 4.2 | 18.8 |
| | G. Petroleum products like spilled gas or oil dripping from cars | 31.7 | 19.2 | 20.1 | 6.1 | 4.0 | 17.2 |
| | H. Septic systems | 14.6 | 23.1 | 25.2 | 11.6 | 5.1 | 18.6 |
| | I. Road and Parking lot runoff | 16.1 | 30.1 | 25.2 | 6.2 | 4.1 | 16.3 |
| | J. Soil erosion | 15.0 | 26.4 | 26.1 | 8.1 | 3.1 | 19.3 |

| | | | | | | | |
|---|---|--------------------------|--------------|--------------------------|---------------------|---------------------|-------------------------------|
| 3 | Please check the box that best applies to you or your household. | | | | | | |
| | | Don't have a lawn | Never | Once/year or less | 2 times/year | 3 times/year | More than 3 times/year |
| | A. We fertilize the lawn. | 6.4 | 40.0 | 28.6 | 12.5 | 5.6 | 4.8 |

| | | |
|---|---|----------------|
| 4 | Check all that applies to you or a member of your household. | |
| | | Applies |
| | A. We use fertilizer on my property. | 42.6 |
| | B. We use weed and feed fertilizer. | 34.7 |
| | C. We use phosphorous free fertilizer. | 13.0 |
| | D. We use pesticides in my yard, garden or on fruit trees. | 21.5 |

Note: The sample size is 3595. All numbers reported as percentages.

5 Presently how do you dispose of common household products such as left over paint or paint thinner, unused gasoline, pesticides, cleaning products or solvents. (Check each that apply)

| | Applies |
|--|---------|
| A. Dump down drain or flush down toilet | 6.4 |
| B. Pour on ground | 3.5 |
| C. Pour down storm sewer/drain | 1.0 |
| D. Put in trash | 24.4 |
| E. Let air dry then put in trash | 36.5 |
| F. Drop off at household hazardous waste collection site | 63.6 |
| G. Store it/hold on to it - for now | 34.2 |
| H. Drop used or old motor oil at local garage | 33.4 |
| I. Share or give left over product to friends or family | 11.0 |
| J. Avoid purchasing hazardous household products | 23.7 |

6 Which of the following best describes what happens during a heavy rain or snowmelt at your residence. (Only check one).

| | Best Describes |
|--|----------------|
| A. Almost all of the water soaks into the ground and does not leave the property. | 34.3 |
| B. Some may soak in but most flows into a <u>ditch</u> or onto the road which then discharges to local waters. | 18.0 |
| C. Some may soak in, but most flows to a <u>storm drain</u> and is then treated. | 10.0 |
| D. Some may soak in, but most flows to a <u>storm drain</u> which discharges to local waters untreated. | 7.4 |
| E. Some may soak in and some runs off directly into local waters. | 12.9 |
| F. I don't know where the rain water goes. | 9.6 |

7 Which of the following correctly describes the storm and sanitary sewer system in your home town. Check the box that applies

| | Applies |
|---|---------|
| A. In my home town, the storm sewer and sanitary sewer system are the same. | 7.2 |
| B. In my home town, the storm sewers are separate and different from the sanitary sewer system. | 27.2 |
| C. In my home town, the stormwater in the storm sewer is treated. | 3.0 |
| D. Don't know. | 53.3 |

Note: The sample size is 3595. All numbers reported as percentages.

8 **What actions, if any, do you take specifically to reduce water pollution in your neighborhood or municipality?**

| | |
|--|-----|
| I can't think of anything I personally do to reduce water pollution. | 46% |
|--|-----|

I do the following to reduce water pollution:

54% said they did something personally to reduce water pollution.

9 **For each of the items below, check the box(es) that apply.**

| | Applies |
|---|---------|
| A. I live in a watershed. | 21.2 |
| B. I have shorefront property. | 8.1 |
| C. I rent but maintain the yard. | 4.6 |
| D. I rent and someone else maintains the yard. | 6.8 |
| E. I own a house or condo and do my own yard work. | 72.7 |
| F. I own a house or condo but hire a lawn care service. | 8.1 |
| I. My wastewater goes to a septic system. | 44.5 |
| J. My wastewater goes to municipal wastewater system. | 36.5 |

10 **Which municipal department do you work for? (check the one that best applies)**

| | Best Applies |
|--|--------------|
| A. Public Works/engineering | 13.2 |
| B. Education/Librarian | 40.1 |
| C. Wastewater or Drinking water | 2.8 |
| D. Parks and Recreation | 3.9 |
| E. Administration/Finance/Municipal official | 11.3 |
| F. Planning & CEO | 3.0 |
| G. Police/Fire/Public Safety | 19.5 |

Note: The sample size is 3595. All numbers reported as percentages.

11 Are you male or female? Male Female

12 How old are you? (Mark the box that applies)

| Under 18 yrs | 18 to 24 years | 25 to 34 years | 35 to 54 years | 55 yrs or older |
|--------------|----------------|----------------|----------------|-----------------|
| < 1 | 3.0 | 14.5 | 59.8 | 20.9 |

13 What is the highest level of education you have completed? (Mark the box that applies)

| Some high school | Graduated High school | Some college or technical school | Graduated technical school | Graduated college | Postgraduate work or degree | Other |
|------------------|-----------------------|----------------------------------|----------------------------|-------------------|-----------------------------|-------|
| 1.2 | 15.8 | 21.3 | 7.1 | 25.8 | 26.8 | < 1 |

14 Please indicate which city or town you work and live in.

I live in city/town:

I work in city/town:

Thank You!

How to return your survey:

Please note: When percentages should add up to 100 and they add up to something less — it is because some respondents failed to provide an answer —even when there were options such as "Other" offered.

Appendix B

Details of Media Buy

Geographic target: statewide

Primary Demographic target: Adults 35-64 (*note: our target was 35-55 year olds, but media is segmented such that the buy focused on 35-64 year olds*)

Details for Stormwater Media Buy

Radio timing: On air during the weeks of 7/26, 8/2, 8/9 and 8/30 through Thursday 9/2/04.
(Note: on 9/3/04 the political window started and the prices went up and availability went down.)
The Stormwater radio ran Monday - Sunday to coincide with the Stormwater TV buy.

The Soil Erosion radio ran Wednesday through Sunday as it did in 2003 to build message frequency at the end of the week and the weekends to reach summer residents who might be here only during the latter part of the week. Weather billboards were a bonus when available.

We bought less Stormwater radio than Soil Erosion radio time. The largest portion of the Stormwater budget was spent on TV time as we thought the power and reach of television would give the most impact.

Radio

* Reach: percentage of the viewers who will be exposed to the message over the course of the media buy.

* Frequency: number of times the average viewer will see the message over the course of the media buy.

Portland market

Reach of primary target audience - 60%

Average frequency - 12.9x

Augusta/Waterville Market (includes spill-in from Portland & Bangor market stations)

Reach of primary target audience - 60.4%

Average frequency - 13.9x

Bangor Market

Reach of primary target audience - 63.7%

Average frequency - 11.1x

Presque Isle & Houlton market

Non-rated market - no reach and frequency available.

Maine Public Radio

The radio buy included 13 weeks of MPR's *All Things Considered*/*Maine Things Considered* It began the first week of August and ran through the last week of October, Thursdays 4:06 PM, 5:06 PM, and 5:58PM.

Television

The Stormwater television buy aired for 5 consecutive weeks: 7/26, 8/2, 8/9, 8/16, and 8/23. Buys included some weather sponsorships and bonus spots as each station's policy allows. Stations were also asked to enter the spot into their PSA rotation to get as much exposure as possible. (Note we know anecdotally that some stations ran them into the end of September.)

Portland market

Reach of primary target audience - 99%

Average frequency - 11.5x

Bangor market

Reach of primary target audience - 98.7%

Average frequency - 15.6x

Presque Isle market

Reach of primary target audience - 99%

Average frequency - 10.6x

Cable system buy

(There are no R/F figures available)

Total stormwater media buy:

| | |
|-----------------------|------------------|
| General radio | \$34,275 |
| MPR Radio Sponsorship | \$ 3,977 |
| Network television | \$ 98,070 |
| Cable television | <u>\$ 12,023</u> |
| Total | \$148,345 |

Details for Soil Erosion Media Buy

Timing of radio:

Weeks of 7/19, 7,26, 8/2, (on hiatus for week of 8/9), 8/16 and 8/23. Hiatus of week 8/9 extends campaign effort beyond the 5 week buy into 6 weeks of exposure.

Portland market

Reach of primary target audience - 74%

Average frequency - 20.2X

Augusta/Waterville market (includes spill-in from Portland & Bangor market)

Reach of primary target audience - 72.1%

Average Frequency - 19.4x

(Lewiston/Auburn market covered by Portland & Augusta/Waterville buys)

Bangor market

Reach of primary target audience - 75.5%

Average frequency - 20.7x

Presque Isle & Houlton markets

Non-rated market.

Total Soil Erosion media buy: \$65,567

Total Media Buy

| | |
|------------------|------------------|
| Stormwater buy | \$148,345 |
| Soil Erosion buy | <u>\$ 65,567</u> |
| Total | \$213,912 |

Total expenditures by media

| | |
|-------|--|
| TV | \$110,093 (network & cable) |
| Radio | \$103,819 (public radio and network radio) |

Appendix C Budget

Research/Development/Management

| | |
|--|--------------------|
| 2003 fall focus groups (2 groups in Portland & 2 in Bangor) (MDEP) | \$13,000 |
| Maine DEP NPS Soil Erosion Program ¹ | \$ 5,350 |
| Maine DEP Stormwater Program ¹ | \$11,500 |
| State Planning Office - web site design | \$1,500 |
| Contract Admin (Partnership) | \$1,204 |
| Before survey questions - spring 2004 (MDEP) | \$1,190.00 |
| Follow-up survey questions - Fall 2004 (MDEP) | \$4,500.00 |
| Total | \$38,244.00 |

¹ Update of soil radio ads, work on San Diego TV ad, development of draft print piece, PR.

Money Raised for Airtime

² \$500 of the money raised went to contract administration (see above table)

| | |
|--------------------------|----------------------------|
| Total spent: | |
| Development/management - | \$38,244.23 |
| Media buy | <u>\$213,912.00</u> |
| | \$252,156.23 |

Appendix D

Phone survey questions

| Question | April (before) | October (after) |
|--|---------------------------|-----------------|
| How concerned are you with the quality of our waterways in Maine? Would you say you are very concerned, somewhat concerned, not very concerned, not at all concerned, don't know? | v | v |
| What common practices in homes or communities, other than factories, contribute towards pollution of our rivers, lakes and streams in the state? | No but asked in Oct. 2003 | v |
| How much of an impact does stormwater have on the quality of our waterways in Maine? | v | v |
| Have you seen, heard or read any advertisements regarding water pollution in the past 30 days? | | v |
| What have you seen, heard or read? | | v |
| Do you recall seeing an advertisement about stormwater pollution that featured rubber ducks accumulating and flowing down stream into rivers and the ocean? | | v |
| Do you recall hearing a radio advertisement about the things we do everyday that end up as runoff going down storm drains and polluting rivers, lakes and the ocean? | | v |
| Did you already take or do you plan to take action to reduce stormwater runoff? | | v |
| What action have you taken or plan to take? | | v |

Appendix E Maine Helpful Demographics

| | Number of people | Percent |
|--|---------------------|------------|
| Population 2003 Estimate | 1,305,728 | |
| Population in 2000 | 1,274,923 | |
| Female / Male | | 51.3/48.7% |
| Education | | |
| Population 25+ years - less than 9 th grade | 47,183 | 5.4% |
| Population 25+ years - 9 th -12 th grade, no diploma | 80,105 | 9.2% |
| Population 25+ years - High school graduate (2000) | 314,600 | 36.2 |
| High school or less | 441,888 | 50.8% |
| Population 25+ years - some college, no degree (2000) | 165,111 | 19.0% |
| Population 25+ years - Associate degree (2000) | 63,934 | 7.3% |
| Some college | 229,045 | 26.3% |
| Population 25+ years - Bachelor's degree (2000) | 129,992 | 14.9% |
| Population 25+ years - Graduate or professional degree (2000) | 68,968 | 7.9% |
| College graduate and above | 198,960 | 22.8% |
| Household Income | | |
| Household Income - less than \$10,000 (2000) | 53,259 | 10.3% |
| Household Income - \$10,000 - \$14,999 (2000) | 39,231 | 7.6% |
| Household Income - \$15,000 - \$24,999 (2000) | 76,633 | 14.8% |
| Household Income - \$25,000 - \$34,999 (2000) | 73,614 | 14.2% |
| Household Income less than \$35,000 | 242,737 | 46.9% |
| Household Income - \$35,000 - \$49,999 (2000) | 94,848 | 18.3% |
| Household Income - \$50,000 - \$74,999 (2000) | 100,423 | 19.4% |
| Household Income between \$35,000 and \$75,000 | 195,271 | 37.7% |
| Household Income - \$75,000 - \$99,999 (2000) | 43,341 | 8.4% |
| Household Income - \$100,000 - \$149,999 (2000) | 24,348 | 4.7% |
| Household Income - \$150,000 - \$199,999 (2000) | 5,866 | 1.1% |
| Household Income - \$200,000 or more | 6,809 | 1.3% |
| Household Income greater than \$75,000 | 80,364 | 15.5% |

| Population by Age | | |
|---|---------|-------|
| Population by age - 19 years old or younger | 335,485 | 26.2% |
| Population by age -20 to 34 year old | 227,273 | 17.9% |
| Population by age -35 to 64 year olds | 528,763 | 41.5% |
| Population by age - 65 years or older | 183,402 | 14.3% |
| | | |
| | | |
| Land area in square miles | 30,862 | |
| Persons per square mile (2000) | 41.3 | |

Appendix F For More Information

Kathy Hoppe
Maine DEP
Division of Watershed Management
1235 Central Drive
Presque Isle, ME 04769
207/764-0477
kathy.m.hoppe@maine.gov

Barb Welch
Maine DEP
State House Station 17
Augusta, ME 04333
207/287-7682
barb.welch@maine.gov

David Ladd
Maine DEP
State House Station 17
Augusta, ME 04333
207/287-5404
david.ladd@maine.gov

Stormwater web site www.ThinkBlueMaine.org

Appendix G ThinkBlue Partners

The towns of:

Berwick
Cape Elizabeth
Cumberland
Eliot
Falmouth
Freeport
Gorham
Hampden
Kittery
Milford
Old Orchard Beach
Orono
Sabattus
Scarborough
South Berwick
Veazie
Windham
Yarmouth

The cities of:

Auburn
Bangor
Biddeford
Brewer
Lewiston
Old Town
Portland
Saco
South Portland
Westbrook

Other

Bangor Air National Guard
Portsmouth Naval Ship Yard
Southern Maine Community College
University of Maine – Bangor
University of Maine – Orono
University Southern Maine
Maine Department Of Transportation
Maine Turnpike Authority
Portland Area Comprehensive Transportation
System
Maine Department of Environmental
Protection
Maine State Planning Office
Cumberland County Soil and Water
Conservation District

