



Clean Land, Safe Water, Healthy Lives



**Getting to the Source:
Understanding District Citizens and
Business Community Attitudes Towards Litter and Responses to
Anti-litter Messaging and Strategies**



**Non-Engineering Solutions for
Trash Reduction in the Anacostia Watershed**

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Alice Ferguson Foundation

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Summary:

The Alice Ferguson Foundation (AFF) conducted social research in order to develop a regional public outreach and education campaign to understand the root causes of littering, and change littering behaviors. Media and message consultants were hired to research, develop and implement campaign plans and materials. The Campaign was piloted with grassroots outreach strategies in the community of Deanwood. Visual Trash Survey monitoring was conducted to measure the effectiveness of the campaign in this pilot community. The goal was to not only find a message that will motivate litterers to care, but to also find effective outlets for disseminating that message.

Research and Message Development

AFF and consultants spent two years conducting social marketing research on citizen's attitudes towards littering in the Potomac River watershed. OpinionWorks, led by Steve Raabe, conducted a series of focus groups; one-on-one interviews with admitted litterers (*not funded through this grant*); a DC-wide public opinion poll; and interviews with 50 businesses to get to the root of littering behavior and examine existing attitudes (*Appendix A*). The one-on-one interviews included in-depth psychological analysis of these admitted litterers by Dr. Sam Cohen.

Results of this extensive research revealed that changing littering behavior is limited by several deep-rooted barriers. For most litterers, littering is merely an impulsive behavior, and defenses for this behavior run high, including: repression -- "I don't think I litter;" denial -- "It's not litter, it's just a gum wrapper,;" rationalization -- "There isn't a convenient trash can,;" and externalization -- "People [e.g. government employees] are paid to clean up litter!". Focus group participants stated that they were less concerned about the water and more concerned about their immediate home, family, and space.

Noral Group International, led by Eva Kasten, interpreted this research to create an overarching campaign message and brand (*Appendix B*). This key message - "*By choosing to take care of trash, I am protecting myself and my family's health, happiness and safety,*" was used to design the entire campaign. The message was designed to raise anxiety about littering and offer a higher level reward for proper disposal of trash. Focus groups and one-on-one interviews also showed that when trash was connected to health it was more impactful, and a secondary message was created to incorporate these findings - "*Improperly disposed trash contributes to filth, disease causing bacteria, and toxins harmful to you and those you love.*"

This was translated into an empowering campaign message, "*Take control. Take care of your trash.*" An additional message line, "*Your litter hits close to home*", was created to impact the place that was found to be most important to litterers—their personal space. The focus groups with admitted litterers found realistic images, particularly those with children, more impactful than abstract or exaggerated images. The images produced with this message include children playing in a sandbox, playground, and soccer field; as well as hiking in the woods with typically littered items. These images were used in the development of campaign materials.

Campaign Materials and Toolkits

Communications Visuals, a communication and marketing firm, was hired in January 2011 to develop the campaign brand, final images, and simplified tagline. Figure 1, shows this image and the simplified tagline – “*Piece by Piece litter adds up and makes the places we go to every day unsafe and unhealthy.*” The message and images were used to develop a visual Toolkit which includes billboards, posters, radio PSAs, decals, and school flyers (*Appendix D*).



Figure 1. First campaign image that incorporates the empowering message

Using these messages, AFF’s communications firm Ruder Finn, created a Toolkit of communication items for jurisdictions, non-profit organizations, and citizens that is available online (www.trashfreepotomac.org). These tools include media tips, talking points, template letters, social media tools, newsletter samples, and communication plans (*Appendix C*). A 5-year communication plan with recommendations for DDOE and partnering agencies was developed and presented in February 2011 (*Appendix E*).

The keystone to the campaign’s success in the District will be partnering between agencies and neighboring jurisdictions who will work collaboratively with implementing the campaign’s watershed wide message through existing outreach channels. Along with jurisdictional

integration, the campaign should also incorporate grassroots outreach by partnering with businesses, schools, nonprofits, and community groups to reach the broadest spectrum of citizens. This will help increase redundancy of the message throughout the entire Potomac River and Anacostia watersheds. This consistent, repetitive voice will be necessary to change littering behavior permanently.

Development of the Campaign was intended to be completed by early fall 2010. However, due to the complexity of the research, the final message was not completed until December 2010 and final images were not completed until February 2011. A partnership meeting was held in February to share the campaign and implementation ideas with DDOE staff, District agencies, and other neighboring jurisdictions. Based on feedback from regional stakeholders, a new line of images was developed in June 2011 that was more seasonally generic and featured more diverse children (*Appendix G*).

Pilot Outreach in Deanwood

In order to gauge the level of implementation necessary to see a measurable reduction in trash, a pilot campaign was implemented in the community of Deanwood in the District of Columbia (*Map found in Figure 2*). While the original start date was scheduled for August 2010, several problems delayed the campaign completion and thus delayed implementation. However, important information was gained about the community and how to implement effective community outreach strategies.

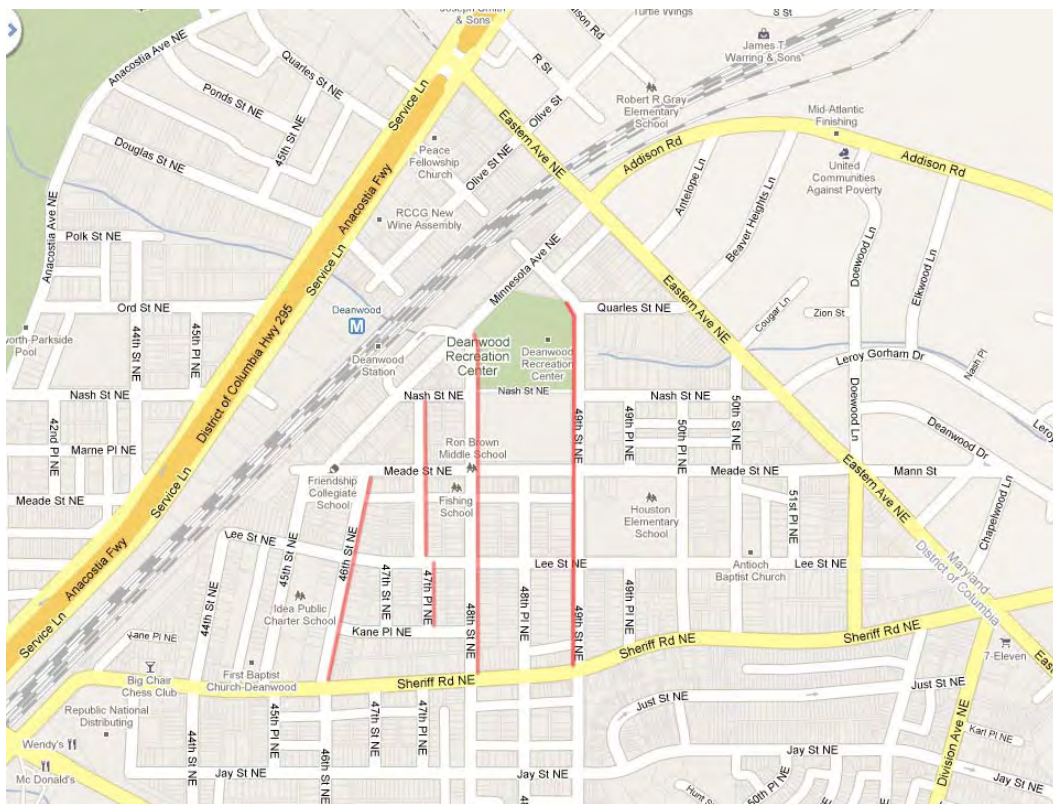


Figure 2. Map of the Community of Deanwood- Most of the community is found in the triangle between Hwy 295, Eastern Ave NE, and Sheriff Rd NE. The red lines on the map above indicate the monitoring route of the visual trash monitoring team.

As the active and vocal portion of the campaign, community outreach can involve a wide range of activities beyond displaying materials. Outreach included engaging civic associations, local elected officials, businesses, schools, recreation centers, law enforcement officers, and churches. In August 2010, Ms. Sylvia Brown, a local citizen, was hired as Outreach Coordinator for the project. Ms. Brown is the local Advisory Neighborhood Commission (ANC) representative for Ward 7D and has extensive experience conducting community outreach on a wide range of topics, including environmental issues. Ms. Brown's main responsibility was to coordinate activities, meetings, and cleanup events, as well as conduct door-to-door outreach.

As described, there were several delays in completing the campaign, which seriously limited the amount of progress made during the first year of the project. Activities organized prior to completion of the campaign included a Kick-off event in August 2010, four community workshops in October, and the Martin Luther King Jr. Day of Service. All activities were poorly attended. Postcards, advertising the Day of Service, were distributed door to door and in churches, were found littering the neighborhood which was the opposite outcome intended.



Figure 3. Kick-off event in August 2010.



Figure 4. Martin Luther King Jr Day of Service, approximately 40 bags of trash and debris collected.

Despite this lack of process, important information was gained about the community, and the challenges that need to be faced in order to effectively implement our outreach strategy.

In March 2011, following completion of the first set of images and associated materials, Ms. Brown resigned from her position as Outreach Coordinator. AFF was not able to hire a new, temporary coordinator until late March. Ms. Tamil Maldonado, a graduate student from Howard University who had worked on several environmental outreach projects especially those related to air and water quality, was later hired as Ms. Brown's replacement. Ms. Maldonado has worked with all ages, from children to adults. While this new coordinator had a solid understanding of outreach, she was not a local citizen like Ms. Brown, and did not possess in-depth knowledge concerning this particular community. Because of this, a significant amount of time was spent gathering information and meeting with community institutions.

Eventually, it was possible to distribute posters to businesses, conduct presentations with youth activities, and display posters and banners in community locations (Figure 5). Much of Ms. Maldonado’s focus was on reaching out to the existing community institutions including Deanwood Main Streets, churches, and the Deanwood Civic Association. These institutions are hesitant to commit to any activity as they already have many issues that they are addressing. Most were willing to share materials, but made no further commitments. Ms. Maldonado also conducted outreach to schools and the recreation center. Both are highly littered areas and highly utilized by youth and community members. It is an ideal way to reach many people in a place where they are already engaged. The recreation center has proven to be a valuable partner, allowing for presentations with various groups, as well as displaying materials and advising on possible outreach opportunities.

Unfortunately, while working with schools seems like the ideal opportunity, it is very challenging to collaborate with them. Meetings were held with Burrville Elementary School, Ron Brown Middle School, and Houston Elementary School. While they were receptive and interested in being engaged it was difficult to maintain a relationship with them, due to their many obligations and busy schedule. Burrville and Houston agreed to be a part of the MWEE project (described later), and agreed to hang posters. Ron Brown expressed a desire to participate and had a very engaged vice principal, but he left at the end of the school year. Attempts to engage the teacher contact were left unanswered. Idea Public Charter School displayed 20 posters, put up by the Groundwork Anacostia DC Green Team members.

	Number	Distribution Location and Audience
11” x 17” Posters	132	4 schools, recreation center, 6 churches, 9 businesses, Deanwood Day
5’ x 2’ Banners	5	Recreation center and rotating events
Decals	400	Passive distribution at recreation center, churches, schools, presentations, and tabling events.
Brochures	280	Passive distribution at recreation center, churches, schools, presentations, and tabling events.
Presentations	10 activities, 260 people	2 cleanup events, 3 sports teams, 1 senior group, Deanwood day, Green Team training, 2 summer camps,

Figure 5. Distribution of campaign materials in Deanwood

A new outreach coordinator, Ms. Renee Winfield was hired in late August 2011, and worked for the remainder of the grant period to conduct more presentations, ensure display of materials, coordinate cleanup activities, collaborate with ice cream/candy truck owners, and attend and present at Deanwood Day on September 17. Ms. Winfield is a local Deanwood resident. While she did not have experience conducting outreach, she was enthusiastic about the problem, knowledgeable about the community, and eager to learn.

For 5 months, December 2010 through April 2011, AFF partnered with Groundwork Anacostia DC (Groundwork) to assist with community outreach in Deanwood. Groundwork is a nonprofit

based in Ward 7, focusing on community development as a means to solving environmental problems. Groundwork assisted in making community connections, as well as utilizing their high school green teams to help spread the campaign message. Groundwork has continued to be an important partner, even after the contract was completed.

In order to monitor the effectiveness of this pilot, Jim and Cynthia Collier were contracted to complete Visual Trash Surveys (VTS) on a designated path through Deanwood (Figure 1 diagrams the path of the monitoring). The monitoring team also conducted control monitoring in a similar neighborhood, Kelly Miller close to Deanwood. AFF did not conduct any education or outreach in this neighborhood. The original monitoring plan was for pre-implementation monitoring to begin in July 2010, followed by several months of monitoring which took place during implementation of education and outreach efforts. That was to be followed by what had planned as post-implementation monitoring. However, as has already been mentioned, campaign implementation suffered several delays. Even after the final images and campaign materials were completed, there were further delays that prevented widespread implementation in the community. Monitoring was completed in July 2011, just as implementation began to get going.

Even though the VTS was not able to monitor the effectiveness of the campaign, it did provide valuable information about litter in the community. The VTS results found that litter levels increased with the start of school in September and in association with holidays like Memorial Day or the Fourth of July. Food wrappers made up the largest portion of litter found. Some of the greatest amounts of litter were found between the metro station, recreation center, and Ron Brown Middle School. The three locations are adjacent to each other and are high traffic areas. There is also an ice cream truck and candy truck that sits in this area. The surveys show a direct relationship between these businesses, increases in litter, and the high volume of children in the area. Successful outreach must address this area. The monitoring team did talk to community members while they were conducting their surveys. The monitoring team also found that citizens cleaned up around their homes located in the control area after they learned that they were being monitored. It will be important for the monitoring team to be equipped with outreach materials in order to engage interested community members.

Lessons Learned

The last year of outreach and monitoring yielded information that will guide future grassroots strategies both in Deanwood and other areas.

- 1. Understand and appreciate the current activities and work in the community.** Many programs are already underway to cleanup and improve communities, as was the case in Deanwood. It is important to understand all the activities, attempting to incorporate and complement existing programs. Competing with existing activities is not effective. For example, in Deanwood, Deanwood Heights Main Streets has a Clean Team that is picking up litter on the streets from 9 am to 5 pm, Monday through Friday in the business district. This is an important group to recognize and collaborate with.
- 2. Listen to the issues of the community.** In Deanwood, many of the residents, business owners, and leaders all agreed that litter and trash were a problem. While they agreed that behavior needed to change, they also felt that their community did not have enough resources available like trash cans, response to 311 calls, vacant lot monitoring, and street sweeping.

This needs to be taken into consideration when developing an outreach program as these important resources may be a source of frustration for community members. Solutions for these problems can be complex. For example, the football team at the recreation center has stated that there are not enough trash cans on the school property during game days. As a solution, AFF purchased trash cans for the center, and will display the campaign posters on the cans (Figure 6).



Figure 6. Trash cans on the football field at the recreation center.

Community members can also share valuable information about trash hotspots. We have found that residents shared verbal information about hotspots (around the schools, metro, rec center, and ice cream truck) and increased littering events (school back in session and holidays like 4th of July). Visual trash monitoring showed similar hot spots and increased littering events, showing that residents understand their community and can help locate and solve problems.

3. **Must hire a local resident for outreach.** A resident is able to bring local perspective to the project, as well as easily maintain relationships with other local residents and institutions.
4. **Project needs a central, locally based place for residents to find out more information or get involved.** Many residents want to know how they can do more, so community information centers are essential. This proved to be a challenge in Deanwood. However, over the past year a relationship has been built with the Recreation Center which is already a central location for many community members. Further information, cleanup activities, and opportunities can be shared through the recreation center. It would also be useful for monitoring team to have information about the project and a central location to share with residents for getting involved. This central location provides means to engage community members that want to help, not necessarily to engage the litterers.
5. **Have an engaging display that is dramatic and shocking.** When conducting presentations it is important to be able to not just describe the project, but to also share shocking imagery that will help people to understand the problem. Figure 7 is a sample of an 11" x 17" poster that was utilized during presentations. Most did not understand how trash travels from the street to the stream, but this tool helped illustrate how this happens. When presented in

association with the campaign message, the campaign message can serve as reminder of this shocking image.



Figure 7. Outreach poster with a shocking pile of trash in Watts Branch.

6. **Meet people where they are.** During the first phase of this project, several cleanup events and evening workshops were held to engage the community. They were poorly attended and proved to be an inefficient mechanism for engaging residents. However, it is believed that the poor attendance was because residents were being asked to do something, in addition to the many other things that they have to do. During the 2nd phase, after gathering more information, the Outreach Coordinator began working on a program that engages citizens through activities that they are already participating in like church service, after school programs, sports teams, school, adult education classes, or civic association meetings.
7. **Provide engaged citizens with ‘Ways To Get Involved’.** As previously stated, many citizens appear to really want to solve the problem. However, after they are engaged, there needs to be opportunities or actions to follow-up with citizens, effectively keeping them engaged. Opportunities for this can range from sharing information or participating in activities to address litter and trash around their homes (e.g. encouraging them to keep a secure lid on their trash can). A full list has been incorporated into an outreach brochure that also describes how the litter gets from the street to the river (*Appendix H*).
8. **Large visuals need to be utilized.** The research showed that people get information from the traditional billboards, metro, and poster ads. It will be necessary to add this component to the outreach. For future implementation, large displays of campaign materials at metro stations, recreation centers and vacant lots are essential. This will increase the redundancy of the key campaign message. Figure 8 shows a picture of the campaign banner at the Deanwood Recreation Center.



Figure 8. 2' x 5' banner of the campaign hanging at the recreation center.

Next Steps

With these important lessons learned and with newly completed visuals, it is essential to continue to engage the community in order to measure the impact of full implementation of the campaign. With only a limited display of large visuals, and sporadic implementation of outreach events, the campaign has not yet reached its full potential in Deanwood.

In addition, identification of hotspots and engagement of local institutions should allow for a targeted outreach effort that will be more effective. As stated earlier, the visual trash survey identified a triangular hot spot in Deanwood consisting of the metro station, recreation center and Ron Brown Middle School. A concentrated outreach effort should be implemented in this area, and could include more visual displays, passive material distribution, and presentations. Active outreach can also be conducted at sources of litter like after school programs and the neighborhood ice cream truck.

Since working with schools is challenging due to their daily curriculum demands, AFF has recruited several of the area's elementary schools to participate in AFF's curriculum based environmental education program through a Meaningful Watershed Education Experience (MWEE). Schools will also be encouraged to implement AFF's Trash Free School program in their schools as an action project. This should create a long term commitment for engagement with the schools (*The trash MWEE is funded through a separate DDOE grant*). Finally, while not the primary target; churches, businesses, and the Deanwood Civic Association will need to continue to be engaged in order to gain long term support and implementation of this project.

Final Budget and expenses can be found in Appendix I. A full description of Outputs and Outcomes can be found Appendix J.

CONFIDENTIAL MEMORANDUM

To: Tracy Bowen, Executive Director
Alice Ferguson Foundation

From: Steve Raabe, OpinionWorks

Date: February 2, 2011

Subject: Summary of Opinion Research in the District of Columbia

This memorandum summarizes the public opinion research funded by the District Department of the Environment (DDOE) and conducted for the Alice Ferguson Foundation (AFF) in 2010. This work consisted of the following:

1. A citywide telephone survey of residents conducted in July.
2. A survey of businesses that are likely to be impacted by the District's new 5-cent bag fee, conducted in the Fall.
3. Three focus groups, two conducted in April and one in November, primarily to support the development of public outreach for AFF's Trash Free Potomac Watershed Initiative.

How This Research Was Conducted

Survey of Residents

OpinionWorks conducted a citywide survey of 600 randomly-selected District of Columbia residents July 21-28, 2010. The survey examined perceptions of the Potomac River and other local waters, experience with and attitudes about litter, and several public policy questions related to these issues.

The Residents Survey numbers have a sampling error no greater than $\pm 4.0\%$ at the 95% confidence level. That means that if every adult resident of the District had been interviewed, the actual results would differ by no more than that amount at least 95% of the time.

Interviewees were drawn randomly from a database of District residents provided by a commercial vendor. We added cell phone numbers to the sample to reach residents without landlines, as well. Weights were applied to bring the survey sample into compliance with demographics of the District, according to the latest estimates available from the U.S. Census Bureau.

Survey of Businesses

AFF and DDOE created a list of businesses to interview in sectors that are likely to be implementing the District's new 5-cent bag fee, and/or may be inadvertently contributing to litter through their operations. These include liquor stores, convenience stores, coffee shops, grocery stores, restaurants and carryouts, hotels, large retail stores, and institutions.

A letter from AFF was sent to the owner or manager of each of these businesses, and we followed with a telephone call seeking an interview. A total of 51 businesses were interviewed by telephone or on foot between September 2010 and January 2011.

The survey addressed businesses' experience implementing the bag fee, their own dealings with litter and trash, attitudes about several public policy proposals, and willingness to be engaged in the Trash Free Initiative.

Focus Groups

A focus group is a roundtable discussion of up to 12 people, facilitated by our professional moderator, to allow for an in-depth discussion of attitudes and perceptions. The goal is not to accurately represent the opinions of people all across the City, as is the goal of a telephone survey. Rather, the goal is to explore deep-seated feelings, to allow respondents to speak at length, and to understand the "why" behind their impressions.

A focus group is an excellent way to seek reactions to advertising concepts and messages, as a step towards refining those before money is invested communicating broadly with the public. For this project, that was exactly the purpose of the D.C. focus groups, to help design public outreach messaging for AFF's anti-litter campaign to reach D.C. residents.

We recruited residents to participate in these focus groups who admitted to littering a range of commodities from cigarette butts to wrappers, bottles, cans, cups, and even boxes or bags of trash. They had to admit recent littering in at least two of these categories to be admitted to the focus groups. Respondents were recruited through posters, word of mouth, and through an online ad.

Two focus groups were held on April 20, 2010 in a church in the Deanwood neighborhood of Northeast D.C. This neighborhood was chosen because DDOE had designated the Nash Run sub-watershed, which includes Deanwood, as a focus area for public outreach. On November 29, we held a third focus group at the Frank Reeves Municipal Center at 14th and U Streets, N.W., drawing participants from across the City.

Following is a summary of our research findings.

Current Perceptions of Residents: How Clean are Neighborhoods and the Waters?

As a starting point, we asked residents for their perceptions of how "clean and free of trash" their own neighborhood was, and followed that with an assessment of the two major rivers and Rock Creek. We asked them to offer those assessments on the classic A through F scale that is used in school. These grades are summarized in the table on the next page.

Sixty percent (60%) of residents graded their own neighborhood an A or B, while 40% offered a grade of C or lower. Across the city, the average grade for neighborhoods is B-Minus, or 2.63 on the traditional 4-point scale. There are large variations in the neighborhood grades based on where one lives (Wards 3 and 4 giving themselves the highest grades and Wards 5 through 8 the lowest).

For the rivers:

- The Potomac earns a grade of C-Minus (1.86 average), with 24% offering the Potomac an A or B, and 62% grading it C or lower.
- The Anacostia earns a grade of D-Plus (1.23 average), with 11% giving it an A or B, and 74% grading it C or lower. One-quarter of District residents (26%) give the Anacostia a failing grade.
- The Rock Creek is somewhat better regarded but still lacks public confidence, falling mid-way between B and C (2.51 average).

Grading Neighborhoods and the Local Waters
Survey of Residents

	A (4)	B (3)	C (2)	D (1)	Fail (0)	Not sure	Average	Grade
Your Neighborhood	21%	39%	28%	6%	6%	1%	2.63	B –
Potomac River	2%	22%	35%	15%	12%	13%	1.86	C –
Anacostia River	1%	10%	23%	25%	26%	15%	1.23	D +
Rock Creek	13%	33%	21%	9%	5%	20%	2.51	B – / C +

“Students are often given the grades of A, B, C, D, or Fail. If I were to ask you to grade how clean and free of trash the streets, sidewalks, alleys, and parks in your own neighborhood are on an A to F scale where ‘A’ is best and ‘F’ is worst, what grade would you give?”

“Please grade how clean and free of trash the following local creeks and rivers are on an A to F scale where ‘A’ is best and ‘F’ is worst.” (Read and randomize.)

Only 18% of District residents believe the fish that come out of local waters are safe to eat, and only 8% believes local creeks and rivers are clean enough for swimming.

But there is strong public will to do something about that. Roughly two-thirds of residents said it is “very important” that someday local waters will be clean enough for fishing or swimming.

Importance of Cleaning up Local Waters
Survey of Residents

	Fish Safe to Eat	Can Safely Swim
Very important	71%	63%
Important	18%	22%
Total Important	89%	85%
Only a little important	7%	9%
Not important	3%	6%
Not sure	2%	*%

“How important is it to you that someday the local waters be clean enough that any fish you catch are safe to eat?”

“How important is it to you that someday the local rivers and creeks be clean enough that people can safely swim in them?”

Experience with Littering and Trash

Residents' Experience with Littering

Littering is a widespread problem in the District. Many people engage in this behavior, and many others observe it and are bothered by it.

- Two-thirds of residents (68%) said they see someone tossing litter on the ground or in the water often or sometimes. One in five residents (21%) said they see it often.
- Seventy percent (70%) of residents said seeing litter on the ground or in the water bothers them "a lot."
- Nearly all residents (94%) believe that littering contributes to "filth and bacteria" and two-thirds of residents (67%) "would worry about that."
- Similarly, 83% think littering plastics could put toxins in the soil and water, and 67% would worry about that.
- While 85% know littering is against the law, only 7% think there is a "good chance" a litterer will get caught.

In terms of their own behavior, a substantial number of residents are willing to admit to littering. Though the social stigma attached to littering may cause some people to under-report their own behavior, we know from several years of interviewing litterers that most people engaging in this behavior are ready to admit it without stigma. For those who are embarrassed, our questionnaire is designed to be confidential and to walk people up the scale from perhaps more benign actions to more significant ones so they feel safe telling us the truth.

The table below summarizes what residents reported to us about their own littering behavior. Between 12% and 40% of residents litter depending on what is included in the definition.

Self-Reported Littering Behavior by D.C. Residents

	Yes
Partially-eaten food	20%
Cigarette butt	12%
Chewing gum	14%
Wrapper	9%
Bottle or can	5%
Cup	3%
Box or bag of trash	1%
Litters at least one item on this list	40%
Litters at least one item, excluding food	28%
Litters at least one, excluding food, chewing gum, cigarette butts	12%

"Probably everybody drops things on the ground or tosses them from a car window from time to time because they are not near a trash can. I'd like to ask you whether you have ever dropped, tossed, or dumped any of these things over the past couple of years or so."

Aside from testing specific advertising concepts, images, and copy for the upcoming public outreach effort, it was in the area of understanding littering behavior that our focus groups made their greatest contribution. We gained new or validated prior learnings in these areas:

- Much of the littering behavior is driven by the desire to push unwanted trash out of one's own space into others' space. Significantly, most of the heavy litterers we interviewed in the focus groups have a very narrow personal zone which may consist literally of their own car or yard, or the two feet around them as they walk down the sidewalk. When trash leaves that space, it leaves their consciousness.
- Much of the behavior is thoughtless, an ingrained habit that is typically rampant among their peer group. It is just a pattern of behavior.
- Threatening fines or other punitive action is not believable to them, because they see such a low likelihood that they would ever get caught littering. Confronting or talking tough with them only raises their defenses and causes them to turn off from the message.
- Elevating their sites to care about their "community," or even about their neighborhood, is difficult if not impossible. Many litterers are transient and have at best shallow roots, or their economic circumstances or life experiences have convinced them that the community is not on their side.
- Making their litter personal gets their attention. When litterers think about the possible health effects of litter, they pay attention. "Filth," "bacteria," and "toxins" are all extremely powerful words and concepts. Facing the idea that someone close to them may come into contact with unhealthy litter bothers them, particularly if it is someone they view as innocent.
- Seeing trash floating in the water is much more bothersome to them than seeing it on the land. They explain that this is because of the circulation of water, and the fact that litter could be making a whole ecosystem sick.
- In the imagery of the campaign, the respondents reminded us starkly that no one race or ethnic group can be seen as singled out for causing the problem. Communications must take care to be inclusive and even-handed in their racial and ethnic makeup.
- Finally, campaign imagery needs to be real-life to be most effective. In other words, while exaggeration for effect can be evocative, respondents strongly expressed a desire to see ads that put people in settings that they could imagine. This helps them relate to the ad, and take it more seriously.

Businesses' Experience with Litter and Trash

Forty percent (40%) of the businesses we interviewed said there is unwanted litter and trash around their property. Of those:

- One-half (52%) said unwanted litter and trash is a problem.
- Nearly one-half (46%) said they or their employees see people tossing litter near their property often or sometimes.
- Nearly six in ten (58%) have to expend personnel and/or financial resources cleaning up trash and litter around their property.

Asked what the City should be doing to help businesses deal with the litter problem, most want more street and sidewalk sweeping, some ask for better enforcement of anti-littering laws, and several mention the new bag fee specifically as a step in the right direction.

While one-third of the businesses we interviewed produce food waste, only 4% of them said they are composting. Only 7% felt they had access to composting. Three-quarters (77%) of the businesses said they are recycling, however.

Type of Waste Produced by Businesses

Cardboard	65%
Food waste	35%
Bottles/Cans	32%
Paper	32%
Plastic	30%
Bags	5%
Other	8%

"What type of waste does your {business/organization} produce?"

When AFF's public outreach initiative was briefly described to the business owners and managers, almost half (45%) could see their own business getting involved in some way. Another one-quarter said it was a corporate, not their own decision – meaning the business might get involved pending corporate approval. Specifically:

- Nearly two-thirds (63%) of the businesses we interviewed said they would be willing to educate customers by posting flyers, posters, or decals.
- A majority (55%) would encourage employees to participate in campaign events and clean-ups.
- Four in ten (41%) would be willing to give input on public policy ideas.
- And a healthy one-quarter (24%) of the businesses would be willing to "sponsor the campaign monetarily to help give it more reach."

Public Policy Questions

5-Cent Bag Fee

We know from the focus groups conducted among District residents in April that knowledge of the new 5-cent bag fee is close to universal. Anecdotally, we also learned in the focus groups that there is very good knowledge that the fee is dedicated to Anacostia River clean-up.

On the Residents Survey, we measured the impact of the fee on bag usage. An astounding 75% of District residents answered that they have reduced their plastic bag usage since the fee was introduced in January. Only 21% said they have not reduced their plastic bag usage, and the rest said they never use bags or were not sure. As a public policy measure intended to impact individual behavior, the bag fee has been an unqualified success.

On the Business Survey, estimates of the reduction in bag usage by their own customers ranged from just a few percentage points to 80% lower – with a majority of the businesses who offered an estimate saying their consumption of bags is at least 50% lower.

Only 12% said the bag fee has affected their business negatively, while 20% said it has affected them positively. Most owners and managers (58%) said the bag fee has not affected their business at all. When asked specifically what positives and negatives they see from the law, owners and managers mentioned a reduction in litter and a benefit to their bottom line with fewer bags purchased; meanwhile, very few specific negatives were mentioned. Businesses said their customers have adjusted to the law, and there appears to be very little complaining about it by customers.

When asked what the City can do to better help them implement the law, the greatest response by businesses is more publicity to support their efforts to explain the fee to customers.

Bottle Deposit Law

Among residents, there is overwhelming support for a bottle deposit law in D.C. Four out of five residents (79%) favor such a law, and 61% of residents do so *strongly*. Opposition is small. Only 15% oppose a bottle deposit law, and only 8% do so strongly.

The picture is different among the businesses we interviewed. Among those with an opinion, the levels of support (40%) and opposition (38%) are nearly even. When business owners and managers who are opposed were asked why they feel that way, most cite the burden they believe they would face implementing a bottle deposit law: devoting precious storage space to collecting the returns, committing personnel to managing and handling the returns, and so on.

Support for Bottle Deposit Law

	Residents		Businesses	
	Initial Support	Informed Support	Initial Support	Informed Support
Strongly favor	61%	69%	31%	30%
Not so strongly favor	18%	13%	10%	25%
Total Favor	79%	82%	40%	55%
Neutral/Not sure	6%	8%	21%	28%
Not so strongly oppose	7%	3%	19%	10%
Strongly oppose	8%	7%	19%	8%
Total Oppose	15%	10%	38%	18%

(Basic Support Question): "As a way of reducing litter and encouraging recycling, some states like New York collect a 5-cent deposit on beverage containers, which you get back when you return the empty bottle or can to the store. Would you favor or oppose this kind of a bottle deposit law in D.C.?"

(If favor or oppose): "Do you feel that way strongly or not so strongly?"

(Informed Support Question, continues on next page): "Through new federal requirements, D.C. must eliminate trash from the Anacostia River by 2015. About 25 percent of that trash is made up of beverage containers. Capturing them with screening devices will cost millions of dollars in taxpayer money, while a bottle deposit law would cost much less. Knowing this, would you favor or oppose a bottle deposit law in D.C.?"

(If favor or oppose): "Do you feel that way strongly or not so strongly?"

Then we tested the impact of telling residents and businesses some facts that would argue for a bottle deposit law – a so-called “informed support” question. When told that new federal requirements mean D.C. must eliminate trash from the Anacostia River by 2015, that 25 percent of that trash is made up of beverage containers, and that a bottle deposit law will cost taxpayers much less than screening devices, overall support among residents rises to 82% and opposition falls to 10%. Though the numbers are not as high, the effect is more dramatic among the business audience. There, support climbs by 15 points (to 55%) and opposition falls to less than one-half of its prior level (18%).

Support for a bottle deposit law is just as high among residents who said they always vote as among those who vote less frequently or do not vote. Interestingly, the greatest support for a bottle deposit law comes from city residents who frequently litter. Within that group 76% would *strongly* support such a law.

By way of comparison, these bottle deposit numbers in D.C. are similar and slightly better than those we measured through a survey in the City of Baltimore last winter. There, 71% of residents favored a bottle deposit law, and 24% opposed it.

Styrofoam Ban

Similarly, there is strong support for a ban on non-biodegradable Styrofoam in D.C. Three-quarters of city residents would support a Styrofoam ban (73%), with 64% saying they do so strongly.

Among the businesses we interviewed, support is just as high (76%). Perhaps more significantly, there is almost no opposition (2%) to a Styrofoam ban in the business community.

Support for Styrofoam Ban

	Residents	Businesses
Strongly favor	64%	55%
Not so strongly favor	9%	21%
Total Favor	73%	76%
Neutral/Not sure	12%	21%
Not so strongly oppose	7%	2%
Strongly oppose	8%	*%
Total Oppose	15%	2%

*“Would you favor or oppose a ban on non-biodegradable Styrofoam in D.C. to reduce litter?”
(If favor or oppose): Do you feel that way strongly or not so strongly?”*

Among residents, support for this ban is strong across the City and regardless of demographic group, and support is slightly higher among residents who said they always vote. For comparison, support for this ban is significantly higher in D.C. than we measured in Baltimore earlier this year, where 55% of residents said they support the idea.

Conclusions

Littering is a widespread problem in the District, with as many as four in ten residents actively littering themselves depending on the definition of litter one uses. Our focus groups have provided many clues to the reasons for this littering behavior, and helped to construct a campaign message that can reach and move this difficult audience.

Unwanted litter and trash appears to be a problem for businesses, and many of them have to commit resources to cleaning up. This translates into a healthy willingness on the part of half the businesses we interviewed to become engaged in the Trash Free Potomac Watershed Initiative. Access to composting appears to be an initiative that would benefit many businesses, as well.

The 5-cent bag fee has changed people’s behavior. Three-quarters of residents are using fewer bags. Businesses are not very bothered by the new law, and neither are their customers, they say. Instead, businesses are using many fewer bags and like the impact of that on their bottom line.

To address litter further, residents strongly support both a bottle deposit law and a Styrofoam ban. Businesses strongly support a Styrofoam ban. While businesses have some reservations about a bottle deposit law, support reaches a strong majority when rationale for the measure is presented.

Overall, this research provides very good insight into a number of ways to impact the problem of litter and unwanted trash in the District of Columbia.



RESEARCH

TRANSLATING KNOWLEDGE INTO CREATIVE DIRECTION
A Research Analysis Report for the Trash Free Potomac Watershed Initiative

June 2010

BACKGROUND

Trash is a serious problem in the Potomac Watershed, and its major tributaries. An estimated 200 tons of trash per year travels from the streets into storm drains and waterways until it reaches the Potomac River¹ where it:

- can have significant negative chemical and biological impacts;
- interferes with the establishment of emergent aquatic plants;
- is hazardous to wildlife through ingestion of or entanglement in floating debris;
- negatively impacts community aesthetics and well-being; and,
- interferes with public use and enjoyment of the Potomac river and its tributaries.

The Alice Ferguson Foundation (AFF) formed the Trash Free Potomac Watershed Initiative (TFPWI) with the goal of a “Trash Free Potomac by 2013.” As part of the TFPWI, AFF hired a team to develop and execute a multi-tiered, multi-year, and multi-targeted integrated education and social marketing program.

Because the goal of the campaign is to make the Potomac River trash free by 2013, it is imperative to understand how to get people to stop trashing. The campaign has to somehow convince people that *not* throwing trash on the ground or out of a car window is *more desirable* than trashing. Understanding how to effectively “position” the behavior we desire (not trashing) will go a long way to determining the success of the Trash Free Potomac Watershed Initiative.

We understand this is not easy, but it is possible. The campaign must understand deep-rooted motivations, barriers, and benefits associated with trashing behavior as well as how non-trashers and TFPWI stakeholders think about the issue. Being able to combine and translate understanding from all of our target audiences is imperative to creating an overarching campaign “brand” (which includes a logo and tagline or selling line) that will:

- Identify universal values (and cultural icons)
- Tap into those values
- Address misperceptions and barriers;
 - trigger “anxiety,” create discord
- Direct to positive end
- Reinforce values

¹ Alice Ferguson Foundation, Potomac River Clean Up. April 10, 2010.
http://www.fergusonfoundation.org/trash_initiative/trash_cleanup.shtml

Therefore, in Phase I the campaign embarked upon a multi-leveled marketing strategy that is allowing the team to methodically derive, adapt, and build upon emerging assumptions and theories from the target audiences.

REVIEW OF BEST PRACTICES

The first step of the market research strategy was to conduct a thorough review of other local, state, and national efforts to reduce littering. Components from other campaigns that resonate with the TFPWI include: 1) engagement and activation of partners paramount for campaign success; 2) making effective use of advertising; and 3) using social media to create robust campaign outreach. Print and media advertising from other litter campaigns were tested as part of Phase I research to inform distribution planning for Phase II.

STAKEHOLDER INTERVIEWS

The next phase of the Phase I market research involved stakeholder interviews with elected officials, AFF supporters and others who have a vested interest in the TFPWI. Using a discussion guide, the team conducted one-on-one interviews to inform stakeholders about the campaign and market research strategy; gather key insights on current regional anti-trash efforts; ask for specific ideas on how the campaign could address trashing behavior in the Watershed region; seek how TFPWI could meet needs in stakeholder jurisdictions; and identify potential partnerships the campaign could establish with stakeholder efforts in Phase II. Stakeholders encouraged the campaign team to test message ideas about:

- Potomac River as the source of our drinking water and recreation;
- Connecting people who trash with the community;
- The cumulative impact of trash;
- Economic cost of litter; and
- Enforcing litter laws.

In addition, there was general excitement about the campaign and desire for the TFPWI to partner at the local level with current trash-free efforts. Many stakeholders offered ideas for sharing campaign progress and materials through their email newsletters, local events, and through other jurisdictional communications channels.

PSYCHOLOGICAL HYPOTHESIS

Following the stakeholder interviews, the research team spoke with an experienced psychologist, Dr. Sam Cohen.² Dr. Cohen specializes in understanding subconscious

² Dr. Sam Cohen has a doctorate in clinical social work and an advanced certificate in psychoanalytic ego psychology (study of unconscious and its impact on behavior). For more than 20 years, Dr. Cohen has honed his skills in integrating unconscious needs and its impact on brand identity for corporate and government clients domestically and globally.

motivations and using this insight to develop creative and effective messages for social change efforts. Dr. Cohen provided hypothetical concepts that may explain why people trash, including:

- Disenfranchisement; no connection to the community at-large, therefore, doesn't mind trashing on it
- Narcissism; cares only if it's about themselves
- Psychological splitting: "what's mine is good; what's yours is bad." (I.e., trashers will keep their space nice, but have no problem trashing on other property.)
- Rebelliousness; anger at authority leads to acting out.
- Impulsiveness; spur of the moment without a thought.
- Immaturity/adolescent behavior; don't care.

TRASHER FOCUS GROUPS

Based on the conversations with Dr. Cohen and the stakeholders, the team crafted concept paragraphs highlighting potential scenarios of the trasher's mindset (Appendix A) and a discussion guide for focus groups. Next, the campaign conducted a series of focus groups with heavy trashers in three regions of the Potomac Watershed: 1 group in Gaithersburg, MD; 1 group in Springfield, VA; and 2 groups in Washington, DC. Each group included 6-8 residents from each area who admitted to littering behavior. Focus group respondents included a mix of racial backgrounds, ages, genders, and income and education levels representative of the areas in which they lived.

Age:

- 18-35: 16
- 36-49: 11
- 50-65: 3

Sex:

- Male: 19
- Female: 11

Race/Ethnicity:

- African American: 19
- Caucasian: 5
- Hispanic: 5
- Other: 1

Highest Level of Education:

- Some high school: 7

- High school graduate: 9
- College: 14

During each two-hour focus group discussion, respondents provided reactions to the concept paragraphs, anti-littering creative that has been implemented in other geographic regions, and their overall thoughts on what would motivate them to stop trashing. Throughout the iterative research process, the concept paragraphs were refined to reflect what we learned from the trashers about their feelings and motivations.

OBJECTIVE

The objective of the next round of research was to probe deeper into the subconscious underpinnings and motivations associated with trashing behaviors in order to help the team identify the most effective messaging for the campaign.

APPROACH

Dr. Sam Cohen - a psychologist and expert in uncovering and understanding the unconscious, emotional needs that underlie behavior - conducted in-depth, one-on-one interviews with a hand-picked subset of five (5) focus group respondents.

- Suburban female, 25-44 years old
- Suburban male, 25-44 years old
- Urban male, 45-64 years old
- Urban male, 25-44 years old
- Urban female, 18-24 years old

During the 60-minute interviews, Dr. Cohen directly interacted with respondents to obtain deeper levels of meaning, make important connections, and identify subtle nuances in their discussions about themselves and their behavior. Although the interviewees were asked similar questions pertaining to their lives and about trash, Dr. Cohen guided the conversations in a personalized way that allowed him to uncover the unconscious, emotional needs behind why an individual litters in the Potomac Watershed. He was then able to discover overarching themes and provide insights into the approach the campaign should take with its messaging and branding.

DETAILED FINDINGS

WARM-UP

What do you like and/or dislike about your current stage of life right now?

Differences between the individuals (e.g., age, employment status) were reflected in their responses to this question.

- *"I'm not married and not settled in my career. Everyone else is."*
- *"Feel good about my career, life in general."*
- *"I need to get back to work. Not working makes me sad and frustrated."*
- *"I feel good about starting college in fall; good mother, good leader."*

What did you like about growing up? Respondents overwhelmingly identified family as something they enjoyed while growing up.

- *"I loved being around my friends and family."*
- *"I liked birthdays, reunions, [my] family all together."*
- *"I liked vacations together, going to the beach."*

What did you dislike about growing up? Although being with family was something they liked about growing up, the dynamic of their family relationships was also identified by respondents as what they disliked most about their childhood. Individuals discussed feelings of disappointment, isolation, and being belittled stemming from their child-family relationships and situations.

- *"Wish there had been more income to support the 6 of us."*
- *"I felt unimportant. [My father] didn't look me in the eyes. I didn't feel validated."*
- *"He'd yell. I felt little."*
- *"Wish my sister and I had gotten along better. We'd argue or fight and get in trouble."*
- *"My mom put her eggs all in one basket and sometimes that didn't work out for the best."*
- *"Wish our lives had been more stable."*
- *"Grew up with my mother – very career-driven, but that didn't leave a lot of time for me."*
- *"Wish there would've been less arguing between my parents."*

Do you admire anyone? Not every respondent could identify someone they admired. Almost all of the respondents conveyed admiring the very person they identified as being responsible for what they most disliked in their childhood. Individuals were not comfortable with thinking badly of a person like a parent, but they obviously had some "bad" feelings about aspects of their relationship.

- *"My mom. She's really sweet."*

- *“My dad. He works hard.”*
- *“Not really. Maybe Obama?”*
- *“My mother – treated us all the same.”*

One thing you would change about yourself? Respondents provided a variety of answers based on their background, motivations, and current stages of life.

- *“I’d be less sensitive to people’s feelings towards me.”*
- *“Get more healthy.”*
- *“Too much of a perfectionist – get too engrossed in something and need to move on.”*
- *“Smarter; didn’t learn very fast, not bright student.”*
- *“More outgoing. I get in my way – afraid to do something I shouldn’t be doing.”*

TRASHING

Words/attitudes you have or statement you are making when you trash?

Individuals understood that trashing is not a positive thing or something that they should do. But they admit to not caring or to actually feeling some positive rewards; e.g. excitement for getting away with it.

- *“Careless, selfish, reckless.”*
- *“Not thinking.”*
- *“There’s already trash where I live so who cares. I won’t trash away from my house if it’s nicer or cleaner.”*
- *“I don’t care. . . I’m not a goody two-shoes. I don’t care about the environment. I’m tough or something. I’m not just doing what everyone wants me to do.”*
- *“It feels right.”*
- *“I act as I want, not as I should.”*
- *“I really don’t care.”*
- *“It’s almost like you’re stealing. You’re getting away with it. If they catch you – police or neighbors- they’ll holler at you.”*
- *“I have been to other neighborhoods and littered, but not in my own area. If I trash in another area, I’m getting away with it.”*
- *“I enjoy getting away with it. It’s almost like stealing a toss.”*
- *“Makes me feel autonomous.”*

What do you tend to litter? Trashers were willing and apparently comfortable admitting to their trashing a wide range of objects, consistent with earlier studies.

- *“Small chewing gum wrapper.”*
- *“Once in a while, a can on the floor or ground.”*
- *“Paper towel.”*
- *“Cigarettes, soda cans, trash.”*

- *“When I’m opening a pack of cigarettes, taking the plastic off – don’t think of it, just trying to get to the cigarette.”*
- *“Chip bags, can of soda; candy wrappers.”*

Where do you tend to litter? They litter outside the mental and physical boundaries of their things, home and loved ones.

- *“Out the car window.”*
- *“On the street.”*
- *“On the curb.”*
- *“Near my house (neighborhood is dirty).”*
- *“Outside my turf.”*

I’m more likely to litter when? They are likely to trash to keep their things clean, to feel better (whereas walking to a trash can expose them to people they fear might not like them) or there is a sense of excitement or empowerment.

- *“I’m in my car. I don’t want trash in my car. Trash represents dirtiness, disorganization.”*
- *“If there are crowds, with people I don’t know. It seems stressful to be away from home for more time than I need to be. Easier to be selfish and drop what I got, not think of anyone else or what they think. Easier to go on my way”.*
- *“When people aren’t looking.”*
- *“I would prefer not to drop something, but if I’m not around a trash can, I’ll just throw it on the street.”*
- *“If I don’t see some trash cans. And the neighborhood isn’t clean.”*

Less likely to trash when? They are less likely to trash in situations when they can’t enjoy the positive rewards of trashing (because others they care about will be annoyed or they are actually making their own space dirty). They also don’t want to trash or spoil their own eating environment, be disrespectful to people who are caring (and keep their neighborhoods clean), or be a poor role-model for their own children.

- *“I’m with a friend who’s lecturing me. I’ll hold onto it so I don’t have to be harassed.”*
- *“If I’m on own property, I try not to. Our parents always made us pick up trash. If we tried to drop trash or didn’t listen, we’d get whipped with a branch.”*
- *“Out in public at a restaurant.”*
- *“In nice neighborhoods.”*
- *“In front of my kids.”*

If trash were a person, who would you be dropping? They talk about getting rid of the bad things and people in their lives. This is a subtle way of “acting out” but not in a way that is a serious behavioral disorder. They are in effect coping with

their negative feelings about some people or incidents in their lives. The strength in their delivery and openly direct commentary suggests that they feel some empowerment and better for figuratively getting rid of these negative influencers and influences in their lives.

- *“An unimportant person that I don’t know or don’t care about. They don’t mean anything to me.”*
- *“All those people I encountered during interviews.”*
- *“A nobody- don’t mean anything to me.”*
- *“A monster – a male. Kind of monster who...eats people up.”*
- *“My uncle. He’s mean and hit us if we do something bad.”*

What does a person who doesn’t trash look like? Those who don’t trash are represented as “environmental” or something that trashers claim to have no time for, identification with or even care about. They clearly state that this person is not them. One respondent even suggests some resentment over the superiority complex of this group of people; basically saying they think they are better than us (i.e., but we show them...by trashing.)

- *“They really care about the environment. Maybe a woman who works for an agency that deals with promoting a healthy environment?”*
- *“More earthy, greener, conscious about their actions.”*
- *“Kind of girl who is respectful, admirable. Some might find her arrogant because she thinks she’s better than everybody, uppity, ‘goody two shoes”*

What does a person who does trash look like? They responded with some positive associations. One person describes herself. Others talk about the selfishness of the person. A selfish person is, however, also someone who is acting autonomously by their own choice, regardless of others: a positive feeling to not have to always follow instructions or live by what others want you to do.

- *“Working woman who’s in a rush, going to work; doesn’t have time to look for a trash can – really rushed.”*
- *“Really doesn’t care, very selfish.”*
- *“Kind of girl who doesn’t care; she just is – not admirable.”*

Any pictures or message you look at right at the moment that would deter you from trashing? People wanted something funny (about which they would not need to feel badly), to see some negative consequence to things (a neighborhood that’s clearly the home of caring people) or those they care about (e.g. children), to be made aware that they (and their trash) matter (by contributing to a larger mess) or some communication that is relevant and with which they can identify.

- *“Something funny.”*
- *“I don’t know if words or a picture would deter me. At the time, I’m just not thinking about it.”*

- *“Show how my trash will result in... death of animals; harm soil, trees; making our living space smaller.”*
- *“A nice neighborhood, you’re less likely to trash in a clean neighborhood.”*
- *“Showing affects on a child, getting hurt by some kind of trash – step on glass or eat the trash. Because if I saw a picture of a child getting hurt by trash, it makes me not want to litter any more. She could choke on that or cut herself.”*
- *“I shouldn’t litter because people/kids could get hurt by my littering.”*
- *“Relate it to me, my mentality, the pressures of life for me and most other people that would put other things ahead of trash.”*
- *“Use images, not just words.”*
- *“Don’t use words or images that don’t apply to me, like pleasures from the Potomac.”*

CONCEPTS

C was liked the most, B ranked second, A and D were ranked last.

General Comments on A Concept, We’re all connected. Even when there is no mention of “community,” respondents did not feel in any way connected to people, things or areas in their wider area. The notion of being “connected” conveyed no positive benefit. They like being autonomous and their own persons. The concept’s strength was in the opening line, “People often value most and take special care of what is theirs: their family, their kids, their home, their backyard.” They strongly identified with this. It spoke to them in their language.

- *“When I’m outside my turf, I don’t care as much.”*
- *“Only liked the first sentence – ‘people often value most...at the same time you may fail to act the same way beyond your own turf.’”*
- *“I don’t think that my home extends outside, down the block. I don’t feel connected to the park, I don’t care about that.”*
- *“It’s not my turf. [The phrase] ‘All connected’ – I don’t think that’s true. The only way I won’t litter is if it’s already clean there. If it’s already dirty, I’ll just throw trash on the ground.”*
- *“Hard to feel like keeping other streets clean is good for me.”*
- *“Other streets” – doesn’t mean anything to me”.*
- *“[A] Doesn’t impact me as much as the others”.*

General Comments on B, The pressures of life. People did not strongly identify with the concept; some felt upset but did not necessarily want to be considered “angry.” Being an angry person seemed to make them start to feel badly about themselves. The reference to “so called community” defused negative feelings for the community for some, but wasn’t enough for everyone. Others wanted community to be defined by children and families. The reference to “others” in the

benefit statement was a negative. It set up a dichotomy between “them” versus “us.” They did not seem to understand why clean and pleasant would contribute to their sense of pride. Having pride, however, would be a benefit and make them feel good.

- *“Angry is a little strong. Maybe careless?”*
- *“First sentence – it is easy to feel a little angry, but I really don’t think pressures of life or feeling angry has to do with littering. Don’t necessarily believe that.”*
- *“Everybody has difficulties, it’s no excuse to trash. It shouldn’t be like that- you shouldn’t take your everyday problems out on the community.”*
- *“I like ‘pride,’ don’t believe in ‘community’ – individualism is first.”*
- *“Don’t like word ‘connection’ or ‘community’ – leaves you thinking – detached. Not relatable to me. Makes me think of someone more earthly, connection with the universe, the earth.”*
- *“‘So called community.’ That’s a good sentence. I feel that way. That sentence works for me. You’re not connecting with that community so it really doesn’t matter.”*
- *“Didn’t work at all – lot of ‘community.’”*
- *“The phrase, ‘Others realize it’s nicer...’ makes me feel detached - don’t feel like I’m a part of those others. Almost comes across as attacking those that don’t realize it. Trying to make me feel bad if I don’t feel that way.”*
- *“Last two sentences didn’t work at all.”*
- *“The word ‘pleasant’ is different for different people.”*
- *“One of the things this country has going for it is its cleanliness. Someone’s putting a lot of importance on picking up trash.”*
- *“Change ending: it’s easy to feel a little uneasy or disconnected/alienated... Maybe throw in something about your family and children to be in that community and makes more important and [applicable].”*
- *“There’s pride when it’s clean. I wouldn’t want to bring people around my house or neighborhood when it’s dirty.”*
- *“By ‘pride,’ I mean it makes you feel better and safer to be able to walk around in nice area.”*
- *“You lose self-esteem, motivation, everything if you lose pride.”*

General Comments on C, Caring for those you love (higher order needs).

People identified with the notion that people don’t think much about trash or what they do with it. Their “things,” including their own family, very much reflected something they cared about, as we also heard repeatedly in Concept A. They understood the connection between taking care of their family and trash (e.g., if I do trash, I may contribute to the potential ill health of my family.) The terms “filth and bacteria” were quickly powerful, believable, and memorable/easy to play back. The only negative comment was the suggestion to expand the pay off about “caretaking” to not just the family and children but yourself as well. The concept was empowering to some by suggesting YOU are the caretaker, although there seemed to

be the opportunity to build on this so that more people could get the “empowerment” message.

- “[Concept C] talked more about someone who cares about themselves and their own family, things that are important to you. Wouldn’t want to harm your own kids.”
- “[In response to the phrase in Concept C, ‘People don’t always think.’] I can relate to that.”
- “Filth and bacteria – that got to me.”
- “[Most motivating part of this concept] – filth and bacteria.”
- “Filth and bacteria from trash affects anybody, not just children.”
- “[Most motivating] is ‘filth and bacteria...’ trash can do a lot of bad things, especially if you have kids like I do.”
- “[Reading or hearing about] ‘filth and bacteria’” is enough. My kids are playing with this and they don’t know about it and could get sick from it.”
- “[Most motivating was] ‘filth and bacteria’ comment and how it poses a threat to me because of my children. [My children are] my first concern every day.”
- “[Most motivating part of concept] ‘filth and bacteria’ –bad, dirty.”
- “(Reading back and responding to a phrase in Concept C) ‘Trash can contribute to filth and bacteria and pose a threat to health and wellbeing of your children. Taking care of trash is taking care of your kids.’ [This phrase is] very important because it helps me understand that as long as we don’t litter, our kids will have good health.”
- “Maybe change last sentence: taking care of trash is taking care of your own hygiene and hygiene of others.” [Add something in for those who don’t have children. About me.]
- “Connection between trash and what’s important –that really resonates; don’t want health and well-being of your children to be in jeopardy.”
- “[I like] taking care of trash is taking care of your family’s health, taking care of your own if you don’t trash.”
- “It’s motivating because it makes you think of your family healthier and safer. My kids, my property around me.”
- “Take care of your own property and family – agree.”
- “[Makes me think], if I no longer trash...my children can have health, happiness and safe environment.”
- “[Most memorable take-away for me] ‘taking care of trash is taking care of your health, happiness and safety.’”
- “[This is true,] people don’t always really think. I’m not thinking about what I’m doing with the bag when I’m done with the chips. It makes me conscious of what I’m doing with my trash.”
- “[Really like the] part about taking care of trash is taking care of you and your family’s health, happiness and safety.”

- “[Concept C] suggests that if I do trash, me and my family won’t be in good health.”
- “What most affected me [about concept C] - when it talks about bacteria and threat to health and wellbeing of your children.”
- “[This paragraph makes me] more concerned about my health and makes me think I can put the trash in my pocket til I’m near a trash can. Health comes first.”
- “[I like the phrase in concept C] YOU are taking care – makes me feel good about it. I’m setting an example for my children as a father for when they are out on their own; sense of pride.”
- [Change anything about concept C]? “No.”
- “Wouldn’t change anything [about this concept].”

General Comments on D, It’s your water. People, unfortunately, did not strongly relate to this concept. The benefit, the pleasures they get from the Potomac, did not resonate. They don’t worry about the quality of their drinking water; they have stress in their lives and discussed earlier in the interviews how they did not have time to be concerned with “environmental” matters. Their concerns were more basic, including health and safety. “Higher order needs” (beyond those more childish needs for immediate gratification) translated to their families, but not to the Potomac River. The opening sentence, “It’s hard to imagine that a little plastic bottle or trash will end up in the Potomac River,” was what worked best in the concept.

- “[Concept D] didn’t apply to me, but only DC people – not me in Annandale. I don’t swim in the Potomac. I drink bottled water. Speaks more to people who live near the water. I don’t think of Fairfax or Springfield or Herndon. This is for DC, not for where I live.”
- “I don’t swim or go fishing in the Potomac.”
- “The water is cleaned at the treatment center before it reaches me anyway.”

KEY FINDINGS

COMMON “ANXIETY”

Trashers are experiencing some negative feelings; particularly, some sense of loss and even abandonment. Whether it is an unstable home, lack of a father figure, or rejection at job interviews; respondents discussed feelings of insignificance, disappointment and rejection or disenfranchisement.

- “Wish there had been more income to support the 6 of us.”
- “I felt unimportant. [My father] didn’t look me in the eyes. I didn’t feel validated.”

- *“He’d yell. I felt little.”*
- *“Wish my sister and I had gotten along better. We’d argue or fight and get in trouble.”*
- *“My mom put her eggs all in one basket and sometimes that didn’t work out for the best”*
- *“Wish our lives had been more stable.”*
- *“Grew up with my mother – very career-driven, that didn’t leave a lot of time for me.”*
- *“Wish it would’ve been different – less arguing between parents.”*

TRASHING AS A COPING MECHANISM

Throughout the interviews, respondents seemed to quickly cover up the negative feelings they felt by moving on to explain circumstances. However, when individuals spoke about trash, what it represented, and what they wanted to “get rid of” when throwing it down, the trash seemed to directly relate to their negative feelings. By trashing, the individual appears to be “throwing away” or “getting rid of” what is bad. Trash takes on those negative feelings and helps trashers hold onto to what is good.

“When I throw trash I am throwing away...”

- *“An unimportant person that I don’t know or don’t care about. They don’t mean anything to me.” (How she felt when arguing with her father - unimportant, not validated, belittled.)*
- *“All those people I encountered during interviews.” (How he felt when he was rejected during interviews time and again.)*
- *“A nobody- don’t mean anything to me.”(Feelings of insignificance, abandonment.)*
- *“A monster – a male. Kind of monster who...eat people up.” (Addressing instability and violence in childhood.)*
- *“My uncle. He’s mean and hit us if we do something bad.”(Addressing feelings of being mistreated.)*

COMMON BENEFIT

By trashing, individuals are getting rid of “bad feelings” and that helps them feel good about themselves. Trashing behavior is providing unconscious rewards and positive feelings at 3 different “levels.”

1. Allows them to be immature, do whatever they want whenever they want.
 - *“It feels right.”*
 - *“I act as I want, not as I should.”*
 - *“I feel like it’s somebody’s job to pick it up. It’ll get picked up regardless.”*

2. Helps them get autonomy, take control.
 - *"I don't care. . . I'm not a goody two-shoes. I'm tough or something. I'm not just doing what everyone wants me to do."*
 - *"I enjoy getting away with it. It's almost like stealing a toss."*
 - *"Makes me feel autonomous."*
3. Gives them empowerment, they are taking out anxiety on something else.
 - *"There's already trash where I live so who cares. Won't trash away from my house where it's nicer."*
 - *"I have been to other neighborhoods and littered, but not in my own area."*

COMMON VALUE

Although the campaign did not identify a common "icon" for the Potomac Watershed, there is a common value. People love and want to take care of what is theirs, such as their family, their home, and their cars. They value these things and they take pride in caring for who and what they love.

NEGATIVE CONSEQUENCES

The phrase in concept C "trash contributes to filth and bacteria" (that could be harmful to family and those they love) evoked strong feels from the respondents. It connected consequences (of their trashing behavior) to what they value, bringing trash "back into their homes." A common misperception is that their litter "doesn't hurt anyone." They are motivated when this misconception is corrected and the term "filth and bacteria" helps bring to mind the negative effects of their behavior.

FINAL CONCEPT

After developing and adapting concept statements throughout the phases of Phase I market research, the following concept statement best captures findings from the cumulative and iterative research efforts:

We don't always really think much about what we do with trash. You take care of your own property and your family, things that are really important. But beyond that, does it really matter? Yet there is a connection between trash and the things you value so strongly. Trashing can contribute to filth and bacteria and pose a threat to the health and well-being of yourself and your children (or those you care about). By choosing to take care of trash, you are protecting yourself and your family's health, happiness and safety.

IMPLICATIONS

Based on these findings, the campaign should:

Be about the Potomac, but not appeal to trashers for the sake of the Potomac.

The campaign must embrace the importance of its mission and objective, without requiring trashers to do the same. While many trashers might not want to spoil a beautiful beach location along the Potomac and is something they care about, they aren't really in that moment very often and certainly not in most circumstances when they trash. For most, they do not swim in, eat from, or interact around/on the river. While they might recognize that their drinking water is from the Potomac, they are perfectly comfortable with it being treated and that works fine for them. They are generally just too busy, worried or stressed with their daily lives to have much left over to give to concern for environmental things.

Know its audience.

The campaign needs to speak the language of trashers, identify with them, and be sensitive to their underlying insecurities and vulnerabilities (i.e., they don't need another parental figure telling them what to do or not do in life). It is important to avoid making the audience feel badly about themselves; they already do. If they feel badly, they will continue to have the need to get rid of the bad feelings and continue to dump. Language like "People who don't trash understand that (fill in the reason not to trash)," for example, tells the trasher that they aren't part of that group and by inference are "bad." Attempts to publicly "shame" trashers by posting their names or photographs, for another example, would, for similar reasons, not work to change behaviors.

Uphold the positive.

People who trash, as difficult as the action may be for many to understand, have a strong value system. They strongly agree with statements like "People often value most and take special care of what is theirs: their family, their kids, their home, their backyard." They do not want to trash in their home, their car, their church or even public grounds represented by DC Federal Parks or beaches. The value is unifying and holds true, we believe, across the wide spectrum of campaign audiences ("gross trashers" to "militant non-trashers.")

Help replace one reward (for trashing), with a "better" alternative reward (for not trashing).

The campaign can help people recognize that there is a very good reason to "hold out" for something better than the immature and childish desire for instant gratification; to forgo that momentary sense of reinforcement for something more powerful and lasting. They can get rid of their bad feelings not just by trashing, but by acting responsibly as adults to take care of themselves, and the things and those they care about.

Empower the trasher to *do good by not trashing, and feel good about it.* When they self-select and personally chose to act positively (about what and those they care about), they feel empowered and proud. A sense of pride is very important as represented by many quotes; e.g., “You lose self-esteem, motivation, everything if you lose pride” and “pride means everything is ‘on the up.’”

Create a “manageable” amount of anxiety or worry about continuing to trash. People need to see not just another positive benefit to replace the benefit of trashing, but a possible negative consequence for continuing their trashing behavior. They currently fail to connect the act of trashing with the things that they value, nor see any inconsistency between their trashing behavior and behaviors that are supportive of what they value. Creating some awareness about the connection between their trashing behavior and what they value will create some discomfort; “I am not the person I want to be.” This can’t be so jarring, however, as to be overpowering and have them close down to the message.

Position the brand as a compassionate mentor. Mentoring is about:

“...one person [or persons] helping [others] to achieve something. More specifically something that is important to them. It is about giving help and support in a non-threatening way, in a manner that the recipient will appreciate and value and that will empower them to move forward with confidence towards what they want to achieve. Mentoring is also concerned with creating an informal environment in which one person can feel encouraged to discuss their needs and circumstances openly and in confidence with another person who is in a position to be of positive help to them.”³

Stakeholders, as representatives of the brand and its ambassadors, are the ultimate mentors and the campaign will benefit if they can adopt greater understanding and compassion towards trashers.

NEXT STEPS

Based on the findings and implications from Phase I market research, Noral has developed a draft “creative brief.” This is a one-page blueprint or roadmap the campaign will use to guide development of creative deliverables: the logo, tagline, and Phase II creative materials such as advertising, web sites, etc. It captures how

³ “The Role of a Mentor.” How To Guides. <http://www.howtobooks.co.uk/business/coaching-mentoring/role.asp>

the target audience thinks about trashing behavior and how they connect with it emotionally.

After approval of the creative brief, Noral will present the team with 4-5 tagline options for the campaign. (A tagline is a phrase, based on the creative brief, developed to create an emotional bond with the campaign.) After the tagline is selected by the team, Noral will present several logo options that align with the selected tagline and creative brief specifications to the team for review.

Once both tagline and logo are determined, they will be tested among the target audience in one-on-one interviews. Focus groups in a rural region of Maryland will then test the campaign's communications plan and evaluate audience perceptions of the "filth and bacteria" phrase and potential substitutions. The team may decide to make final adjustments to the tagline and logo based on the target audience feedback, and will present the final version at the Potomac Watershed Trash Summit in September.

Timeline

- Mid-June: Tagline options delivered and reviewed with team
- Early July: Logo options delivered and reviewed with team
- Late July:
 - a. One-on-one interviews to test tagline(s) and logo(s) with target audience
 - b. Focus groups in rural region of Maryland to test 1) communications plan tactics; 2) reactions to "trash contributes to filth and bacteria"; and 3) reactions to words to potentially replace "bacteria"
- August: Adjust/Finalize tagline and logo combination
- September 23: Unveil tagline and logo at Potomac Watershed Trash Summit

APPENDIX A

Early Concept Paragraphs

Trash Free Potomac Watershed Concepts

(Please note, the titles of the concepts were not shared with focus group participants.)

Higher order needs

Many people don't really think much about what they do with trash. Why should they? They take care of their own property and their family, things that really matter. Yet there is a connection between disposing of trash and the things they value so strongly. Trashing on others' property can ultimately reduce the value of their own home, lead to crime and less safe neighborhoods and pose a threat to the health and well-being of their children. Taking care of trash is taking care of their family's health, happiness and safety.

It all adds up

Many people don't think of themselves as people who inappropriately dispose of trash. After all, will a single lottery ticket or a small receipt really make a difference, especially if you only occasionally happen to drop something to the ground. But if everyone does it, you end up with a mountain of trash. If people could see all those individual bits and pieces of trash piled together, they would understand how important it is to be careful to properly dispose of even the smallest things.

It's your water

It's hard to imagine that a little piece of paper or trash of some sort will end up in the Potomac River. But litter of any kind can end up getting into our waterways. And that water is the same water we drink and swim in. The storm drain outside your house is connected to the Potomac. What we do with trash around our home and neighborhood can have a direct and immediate impact. People who don't trash understand that what they do in one area of the watershed affects everybody.

Narcissistic

People often value most and take special care of what is theirs: their family, their kids, their home, their backyard. It just makes sense to keep your own backyard clean and nice. At the same time you may fail to act the same way beyond your own turf. But your community is really an extension of your own home, your street is an extension of your own backyard. By keeping the streets free of trash, some feel they are improving not just their own lives but that of their many neighbors and

community residents as well. It gives them pleasure to be connected to their community and play an influential role.

Low self-esteem

With the pressures so many of us face in life and especially now with difficult economic times, it is easy to get caught up in our circumstances. And given all that a person may have to deal with, what does it matter if someone tosses something out the car window or onto the ground? But our streets are our community. When we keep our community clean we are contributing to a better environment and place to live. People can feel good about themselves when they feel good about being part of their community.

Impulse driven.

In this hectic world we live in, it's sometimes tempting for people to feel a little lazy. After all, it's easy to drop trash without thinking. It's easy to not think that you are making your own community a little less pleasant or inhabitable. They may not stop to remember what a couple of extra steps will do. Going the extra half block to a trash can give people the opportunity to not only get rid of their trash but keep their community safe and clean for themselves, their family and all the people who live in their community.

Entitlement/omnipotent

We all often feel, in this land of freedom, it's our right to do things. For example, some feel they have the "right" to dispose of trash as they want, except maybe in their own backyard. After all, someone will clean it up. We pay taxes so there can be city workers to do just that for the streets. And there are lots of do-gooders who like to gather to clean up the environment on the weekends. Yet there is also a sense of strength which comes from being part of the community, knowing that you can play a role in keeping it and the area where you live cleaner, healthier and more vital. When the community is strong, you feel strong too.

The adolescent

Many of us don't like to do things just because we are told we should. What is expected of us can be overwhelming sometimes - all of those things we are "supposed to do." Some people feel that way about trash. People can be annoyed about having to worry about disposing of trash like they "should." Shouldn't it be enough to just take care of what's yours, your own backyard and personal space? But there are other people who accept that the space where they might trash is also their own, their home, and their community. Not trashing is not about what you should or shouldn't do, it's what you know is right and makes you feel good.

Authoritative

Sometimes it feels like there are so many rules imposed on us from the outside, that it feels good to push back, make a statement, show who's in control by being a little disruptive. That can carry over to how people think about trash. As long as it's someone else's property (and not mine) why not? Why do you have to respect their environment, their space and or even what others want from you? But when it comes to the environment and our community, it's really impossible to distinguish between what's yours and another's. People who understand we are all connected help keep their streets and neighborhoods clean. We can make things happen for ourselves and our community when we don't trash.

It's costing you

We all hate to pay our taxes. Yet we fail to connect our taxes to the cost of litter, improperly disposed trash, and our own actions. It's just so easy sometimes to let some trash fall to the ground or let something fly out the car window. But governments spend millions of dollars in taxes for cleaning up trash, managing the storm drains, and addressing the damage trash causes. And that doesn't even take into consideration the secondary effects of litter on the lives of their family friends and community. Trash costs money. People who don't trash are helping to save money for themselves and their community.

Punitive

There's that old saying "if a tree falls in the forest and no one is there to hear, did it really make a sound?" Did it really matter? Some people think the same way about trash. It is "ok" to occasionally toss trash out the car window or on the street. After all, who will ever know? Who will ever see it? But you never can tell who might notice and even report your actions. And fines can be steep. It's just better to do the right thing and dispose of trash properly.

APPENDIX B

Second Round of Concept Statements

A.

People often value most and take special care of what is theirs: their family, their kids, their home, their backyard. It just makes sense to keep your own back yard clean and nice. At the same time, you may fail to act the same way beyond your own turf. But the area in which you live is also a part of your home. Because we're all connected. Where you live is not just about your home and your backyard, but also the street outside where you live, the yard across the way and the park down the road. By keeping the streets clean of trash you are improving your own life and your neighbors. It can give you pleasure to feel connected.

B.

With the pressures so many people face in life, it's easy to feel a little angry. How could you be concerned about what to do with trash, when you're busy worrying about taking care of yourself. The so-called "community" certainly doesn't do anything to help you. So what if you throw something on the street, in that "community?" But others realize it's just nicer to be able to walk about their homes and neighborhood when it is clean and pleasant. It gives them a sense of pride and makes them feel better.

C.

People don't always really think much about what they do with trash. You take care of your own property and your family, things that are really important. But beyond that, does it really matter? Yet there is a connection between trash and the things you value so strongly. Trashing can contribute to filth and bacteria and pose a threat to the health and well-being of your children. Taking care of trash is taking care of your family's health, happiness and safety.

D.

It's hard to imagine that a little plastic bottle or trash will end up in the Potomac River. But thousands of tons of non-biodegradable waste and debris ends up there each year. The storm drains in your neighborhood's streets are connected to the Potomac. And that's the same water you drink and enjoy for swimming. The same

water from which you may fish and eat. The same water on which wildlife depends. People who don't trash understand that what they do with trash directly affects the pleasures they get from the Potomac.

E.

Many people don't think of themselves as people who inappropriately dispose of trash. What could a single plastic bottle matter? But tons of non-biodegradable waste and debris end up in the Potomac each year: most notably plastic bags and bottles, and cigarette butts. People who don't trash understand that these items never break down or decompose into natural components. It's a lasting problem and threat to the beauty, health and safety of our water supply and resource.

###



Clean Land, Safe Water, Healthy Lives



Litter Prevention Campaign Toolkit

I. Creative Pieces

The creative pieces listed below are designed with the campaign logo and tagline, and can be used in any way you deem necessary and appropriate. Each piece is available electronically.

- **Billboard** Many jurisdictions allow and use billboards on county highways. It is recommended that this campaign billboard be placed on a major commuter road or other location the jurisdiction feels will allow for message penetration among a high volume of the general public. Various sizes available.
- **Banner:** 2'x5'- Must be scheduled with the Campaign Coordinator. Loaned banners are rotated regionally.
- **Poster:** The campaign poster can be used in public facilities, such as recreation centers, government offices, schools, libraries and parks. This is also the template for bus shelter ads, side of bus ads, metro ads and point of purchase ads. The size of the poster file can be manipulated depending on the needs of the jurisdiction. It is expected that the campaign poster will be the most used item throughout the entire region. Various sizes available
- **Flyer** The campaign flyer can be used in various ways, including as part of county mailings by government agencies and service bills (WASA, WSSC). It may also be used in door-to-door local neighborhood outreach. For these purposes, color, one- or two-sided printed material would be preferable to remain consistent with the efforts to preserve the environment. 8.5"x11, 11x17.
- **Decal:** A campaign decal can be used as a giveaway to display in offices, homes, businesses, schools, trash cans, garbage trucks and personal vehicles. The decal has the potential to increase support and buy-in to the campaign at an effective pace. Various sizes available
- **Bumper Sticker:** Similar to the decal, the campaign bumper sticker can be a promotional giveaway as part of outreach by all partners. It can also be provided to school children/parents, sanitation companies, etc.
- **Print Ad:** The campaign print ad can be placed in jurisdictional agencies' newsletters to the public, as well as in community newspapers, church bulletins and local magazines. 8.5"x11"
- **Radio PSA:** Radio stations are mandated to allocate a set amount of time to public service advertising. Therefore, the template radio PSA script included in the toolkit can be submitted to community relations or PSA directors at any local radio station.
- **Online Ad:** The online ad has been designed in a range of sizes that can be inserted in county and city government Websites as a link to the central campaign website. Partner organizations may choose to display this on their websites as well.
 - Pixel sizes: 728x90, 300x250, 120x500.



II. Communication Pieces

The communication pieces of the campaign are designed to actively engage, educate and increase support and awareness among the public. Throughout the year, you will receive new templates with updates related to new findings, campaign progress, timely news hooks and events. It is recommended that at least three of the following tools be implemented throughout your jurisdiction during the first year, increasing the number as budget and time allows.

- **E-Blasts:** Your jurisdiction will receive email copy that can be shared through e-blasts to community members, included in government newsletters, distributed to listserves that include schools, businesses, and community groups. E-blasts can easily be forwarded from one person to the next, spreading campaign messages exponentially.
- **Social Media Recommendations:** This document outlines ways that your jurisdiction can easily implement social media activities (such as Facebook and Twitter) to support the campaign in your county. It identifies what you can do with existing resources, thus making the messages convenient to manage.
- **Template Letter-to-the-Editor/Op Ed:** This template letter will allow you to either proactively disseminate information to community newspapers or respond to an article that may include relevant or related topics.
- **Template Presentations for Speaking Engagements:** The template presentation deck can be used by jurisdictions or any partner organizations that would like to speak at local meetings, public venues, PTA meetings, etc. It includes an overview of the problem with litter in the region and provides information regarding the campaign. There are slides that can be used to build support amongst stakeholders, sharing the tools available to execute the campaign in their locality. There is also content that can be used with area residents to raise awareness of the issue and provide tips on taking person responsibility for litter prevention. *Coming Soon*
- **Book Bag Fact Sheet:** The book bag fact sheet is a seasonal, family-friendly document. It is meant to engage both children and parents in the issue, educate them on solutions and inform them of what they can do to alter their litter habits. This flyer can be shared with schools and included in their existing schedule of handouts. *Coming Soon*
- **Written Sound Bites:** A variety of “sound bites,” or brief talking points, will be provided that can be read by spokespeople at public events such as concerts, meetings and county fairs. For example, an announcer at a fair might remind attendees to sign up for the upcoming Potomac River Watershed Cleanup to support the anti-litter movement.

III. Campaign Resources

These resources include information and documents that allow you to implement the campaign at your own convenience. It provides the necessary information for outreach to the public and interested parties.

- **Media Targets:** A list of local media targets in your jurisdiction are provided to help facilitate outreach to appropriate outlets and assist in disseminating material provided in the toolkit, or for covering your local events pertaining to the Regional Anti-Litter Campaign.
- **Media Outreach Tips:** The tips provided to you will help you feel comfortable reaching out to the media. Resources from the central campaign team are also available to consult with, should you need additional guidance.
- **Talking Points:** The talking points provided will allow you to speak with confidence and in a manner consistent with the umbrella campaign. The talking points include the necessary information you will need if asked questions by media, the public or interested third parties/businesses.
- **Top 10 Questions:** The top 10 questions include the most pertinent questions that a reporter may ask. The questions, in conjunction with the talking points, should re-familiarize you with the campaign prior to any speaking engagements or interviews.



CLEAN LAND.
SAFE WATER.
HEALTHY LIVES.

Regional Litter Prevention Campaign E-Blasts

I. Why the Campaign:

Building Traction against Trash

Did you know that drinking those eight glasses of water a day might actually make you sick? If you live in the Potomac River area, that is.

Only a fraction of area thirst quenchers know that their drinking water is so spoiled it's become a health hazard. Those storm drains you see around town are not trash cans. That same litter that you throw down the drain goes right into your drinking water. You heard correctly: the Potomac Watershed has been contaminated by unsanitary trash and harmful toxins. In fact, the most recent regional Potomac River Watershed Cleanup removed *503,800 pounds of trash* from the water and shoreline. Numerous factors are to blame: lenient law enforcement, meager public education and plain bad habits.

Now for the good news: if more people knew that the storm drains lining their streets propel trash *directly* into our waterways, *without filtering the debris* before it reaches your tap, litter behaviors could be changed.

Start now and help create clean land, safe water and healthy lives. The Regional Litter Prevention Campaign is a multi-state, multi-jurisdictional campaign designed to make the Potomac Watershed trash free. To find out more information, please visit www.fergusonfoundation.org.

II. What is a Watershed:

The Potomac Watershed: A 383 Mile Lifeline

What do four states and the District of Columbia have in common?

The Potomac Watershed is comprised of rivers, creeks, streams and tributaries throughout D.C., Maryland, Pennsylvania, Virginia and West Virginia. It connects communities across this entire region, providing a whopping 80 percent of our drinking water; a place for fishing, boating and kayaking; and a home for wildlife.

Improperly disposed litter travels through the Watershed's far-reaching system of tributaries and is eventually dumped right into the Potomac River. The result? Filth, disease-causing bacteria and toxins harmful to you and those you love.

Help to create clean land, safe water and healthy lives. Participate in taking care of your trash and encourage your friends, family and community to do so as well. For more information on the Potomac Watershed, or how to support the litter prevention movement, please visit www.fergusonfoundation.org.

III. Research Connection:

What's Your Litter IQ?

True or false: Trash that finds its way into storm drains around the Potomac is filtered before it ends back in your water glass.

77 percent of people surveyed throughout our region would have failed that test. If it seems unimaginable to you that litter can travel miles from land to sea, and into our local waterways, you are not alone. A 2008 regional telephone survey of 1,004 people revealed some disturbing facts about behavior and attitudes related to "trashing" and its effects across D.C., Maryland, Pennsylvania, Virginia and West Virginia.

Here's another question: *Why* do we litter? Though the survey revealed that the majority of respondents are bothered by the litter they see, many do not believe they will be penalized for contributing to it; 49 percent of residents responded that there is no chance they will get caught littering. But there are certainly consequences for littering, whether it's a hefty fine, jail time or, even worse, putting the health of you and your family at risk.

Create clean land, safe water and healthy lives. To find out more about litter laws and to how to help make the Potomac Watershed trash free, visit www.fergusonfoundation.org.

IV. Litter & Health

Take Care of Your Health, Take Care with Trash

A few numbers to consider:

- 503,800: the pounds of trash removed from the water and shorelines during the most recent Potomac River Watershed Cleanup;
- 21,597: the number of plastic bags gathered at the same event;
- 14,802: cigarette butts found on the shoreline and floating in the water.

Now, imagine that filth streaming out of your shower or into your morning cup of tea.

Litter is a considerable health concern throughout the watershed. Every day, trash, like plastic bottles, emits harmful toxins and negatively affects both humans and wildlife. The water we use and the water we spoil are the same; there is no filtration. The water that was home to those 503,800 pounds of waste is the same in which we swim, kayak and fish. It is also the primary source of drinking water for **80**

percent of area residents. Litter from our streets and storm drains flows directly into this same water, contributing to disease-causing bacteria that harm the health of our friends, families and communities.

Create clean land, safe water and healthy lives. Alter your trash habits and help to make the Potomac Watershed trash free. Visit www.fergusonfoundation.org for more information.



CLEAN LAND.
SAFE WATER.
HEALTHY LIVES.

Social Media Recommendations

In order to support the Regional Anti-Litter campaign, it is just as important for jurisdictions to engage their audiences online as it is to do so offline, via traditional methods. To aid in these efforts, the Alice Ferguson Foundation has put together a list of recommended activities that each jurisdiction can follow in order to effectively roll out the campaign. The recommendations below assume the jurisdiction has, or can readily develop, some or all of the following:

- A Website
- Online press room
- Monthly e-newsletter
- Regular “blast” emails (e-Blasts)
- Facebook page
- Twitter profile
- YouTube channel.

These tools are highly scalable; any of these channels can be used together or in isolation. Even small steps, such as creating a community Facebook page dedicated to the campaign, can reach an appreciable number of residents. Much of the content for each of these channels – copy for the Websites, press releases for online press rooms, template e-Blasts - will be provided to the jurisdictions by the AFF campaign as part of the communication toolkit updates.

Website

A jurisdiction’s main Website, as a significant repository of content that is expected to appear in search engine results, is likely to receive greater traffic than any other online channel. As such, the Website will be the most important place to disseminate messages about the campaign to target audiences. The jurisdiction’s press room will be an appropriate avenue for news and information on the campaign. This information will be published in press releases and will cover campaign-related information, such as the annual Potomac River Watershed Cleanup, the launch of a new campaign-related program or an upcoming campaign event.

Recommendations:

- *Post 1-3 press releases per year on the regional anti-litter campaign*

- *Post new Website copy (approximately one paragraph in length) each quarter (4 times/year)*

E-Newsletter

An e-Newsletter is used by jurisdictions to keep concerned audiences informed about community activities and county news. Many jurisdictions already use e-Newsletters to communicate with their communities. However, due to the longer lead between e-Newsletter distributions, news tends to be “softer” in nature and less time sensitive. Therefore, a template feature article would be best suited for the e-Newsletter format. AFF will develop a template article with an update on campaign activities. This template article can then be tweaked by each jurisdiction to best suit its needs.

Recommendations: 1 E-Newsletter article per year

E-Blasts

As part of the campaign, four e-Blasts – short copy with an engaging subject line - will be sent out to jurisdictions each quarter. The e-Blasts will provide audiences with snippets of information on the litter problem and on tangible measures they can take to help.

Recommendations: 2-4 e-Blasts per quarter

Facebook

Messages disseminated through a Facebook page should be quick and concise, usually with a link to an external source, such as a Website. A jurisdiction’s Facebook page can be used for sharing any ongoing news or updates about the campaign.

Organizations also have the ability to “favorite” other Facebook pages. Each jurisdiction can use their respective Facebook page to make the umbrella Regional Anti-Litter Campaign page a favorite, and vice-versa. This will help drive traffic both ways, while making it easy for the jurisdiction to track any posts made by the campaign page. Posts by the Regional Anti-Litter campaign can then be reposted by a jurisdiction on its own page.

Recommendations: 1-3 posts per month related to the campaign; “favorite” the regional anti-litter campaign Facebook page

Twitter

Twitter is used frequently to keep people updated with news and announcements regarding topics of interest to them. Twitter feeds are short, using only 40 words or less. Campaign-related tweets posted by jurisdictions should remark upon a single topic and provide an outside link for people to learn more. For example, an appropriate tweet in support of the campaign would be an announcement of the date of the annual Trash Summit with a link for people to request tickets. Sample “tweets” will be provided to the jurisdiction through the campaign toolkit.

In addition to posting informative information, it is also recommended that jurisdictions “follow” the campaign’s Twitter profile in order to receive relevant information. They can then readily re-tweet campaign information to their audiences on a regular basis. Facebook is also a rich source of Twitter content; jurisdictions are encouraged to tweet any items about the campaign that are posted on Facebook and vice-versa.

Recommendations:

- *1-3 original tweets per month on campaign*
- *1-3 re-tweets of “Regional Anti-Litter Campaign” posts per month*

YouTube

As part of its overall communications activities, the Regional Anti-Litter Campaign will be conducting a YouTube public service announcement (PSA) contest. This contest will invite all audiences to create their own video, upload it to YouTube and enter for a chance to win a grand prize and be used as the official campaign PSA.

In order to assist these efforts, jurisdictions should re-post or link to materials AFF disseminates about the contest on YouTube. This will ensure that the contest is known to a much wider audience of participants. Additionally, the winning PSA should be posted on each jurisdiction’s YouTube channel.

Recommendations:

- *Re-post all AFF YouTube Channel announcements on PSA contest*
- *Upload winning PSA to existing jurisdiction YouTube channel*

INSERT CAMPAIGN LOGO

Template LTE/Op-Ed

NAME OF COUNTY Builds Traction Against Trash

What do four states and the District of Columbia have in common?

A complex system of rivers, creeks and tributaries - woven throughout D.C., Maryland, Pennsylvania, Virginia and West Virginia – make up the Potomac Watershed. All of these bodies of water flow into the Potomac River and, ultimately, into the water we drink, bath in and in which we play.

Sadly, the vast amount of litter peppering our shoreline, combined with trash tossed down storm drains, has severely compromised the Potomac. The most recent regional Potomac River Watershed Cleanup, for example, removed whopping *503,800 pounds of trash* from the water and shoreline. **INSERT NUMBER** of those regional Cleanup sites took place in **INSERT NAME OF COUNTY**.

Based on the results of a 2009 phone survey conducted among 1,004 area residents, many people don't know that improperly disposed trash can result in filth and disease-causing bacteria and emit harmful toxins. In fact, a full 63 percent of respondents believed that litter is filtered out of storm water. This is actually, not the case; water running into the storm drains does not go to a waste water treatment plant.

Creating awareness and taking some simple steps will make an enormous difference. Sixty-three percent of respondents in the 2009 survey said that they are bothered "a lot" by the litter they see. Eighty-four percent of those surveyed believed it is incumbent on individuals to resolve this problem, a clear sign that people are willing to do their part to eliminate litter.

It is my desire to reduce the amount of trash rampant in the Potomac Watershed and create a sustainable drinking source for not only **INSERT NAME OF COUNTY**, but the entire region. For this reason, **INSERT NAME OF COUNTY** has partnered with the Alice Ferguson Foundation to implement a Regional Litter Prevention Campaign, a multi-state, multi-jurisdictional campaign aimed at increasing public awareness and *making the Potomac Watershed trash free by 2013*. In order to accomplish this, we all must take personal responsibility. Together, we have the power to help create clean land, safe water and healthy lives for ourselves, our families and our neighborhoods.

Small changes in our behaviors will help to meet the goal: recycle, walk an extra few steps to throw your trash in a bin, always carry a trash bag in your vehicle and participate in a cleanup in your neighborhood, to name just a few. For more information on the Regional Litter Prevention Campaign and to learn how you can support the cause throughout **INSERT NAME OF COUNTY**, visit **COUNTY WEBSITE URL** or www.fergusonfoundation.org.



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Key Messages & Talking Points

Message One: *Who is AFF?*

- The Alice Ferguson Foundation (AFF) is a leading environmental non-profit organization chartered in the state of Maryland. Its mission is to provide experiences that encourage connections between people, the natural environment, farming and the cultural heritage of the Potomac River Watershed, which lead to personal environmental responsibility.
- In 2005, the Alice Ferguson Foundation (AFF) created the Trash Free Potomac Watershed Initiative (TFPWI), a multi-year endeavor, to address the growing trash problem in our region. The TFPWI aims to:
 - Encourage collaboration among regional leadership ;
 - Explore alternative, innovative, cost-effective solutions with long term impact; and
 - Increase public awareness.
- To accomplish the goals set forth by the TFPWI, its programs are separated into five categories: Public Education, Regulation, Policy, Enforcement, and Market-Based Approaches.
- There are three primary engagement programs under the TFPWI, which bring together elected officials, partner organizations, and concerned citizens. These programs include :
 - **Potomac Watershed Trash Treaty** – signed by regional legislators committing them to supporting and implementing strategies aimed at reducing trash and increasing recycling; increasing education and awareness of the trash issue throughout the Potomac Watershed; and reconvening annually to discuss and evaluate measures and actions addressing trash reduction. Currently, 161 elected officials have signed the trash treaty.
 - **Trash Summit** - The annual Potomac Watershed Trash Summit brings together congressional, state and local elected officials, concerned citizens, and environmental champions to facilitate dialog surrounding solutions and action steps to reduce litter in the region.

- **Potomac River Watershed Cleanup – A Community Catalyst for Progress:** Thousands of volunteers congregate in sites across the region each year in April to remove hundreds of tons of trash from sites along the watershed.

(For more information on the programs that comprise the TFPWI, please see the attached fact sheet or visit www.fergusonfoundation.org)

- The ultimate goal of the TFPWI is to create a Trash Free Potomac through coordinated, cross-regional, watershed-wide efforts in Public Education, Regulation, Policy, Enforcement, and Market-Based Approaches.

Message Two: *What is the campaign and why do we need it?*

To combat the severe problem with trash in the Potomac Watershed, The Alice Ferguson Foundation and local jurisdictions seek to raise public awareness and bring a stop to litter so that we may have clean land, safe water and healthy lives.

- The Potomac Watershed makes up 80% of area resident’s drinking water. Each day, the river and its tributaries supply about 500 million gallons of fresh drinking water.
- A watershed (sometimes called a drainage basin) is the area of land where all of the water that is under it or drains off of it goes into the same place – in this case, the Potomac River. Tributaries (streams, creeks, and smaller rivers)) are smaller bodies of water that flow into a larger body of water. The major tributaries of the Potomac Watershed include North Branch Potomac River, Savage River, South Branch Potomac River, Cacapon River, Shenandoah River, Antietam Creek and Monocacy River.
- Most trash is improperly or intentionally discarded along roadsides and in public and private open spaces. There are legal consequences to discarding trash improperly. Litter laws carry high penalties, ranging from \$75 to as much as \$40,000 in counties around the Potomac Watershed. In addition, litter and dumping infractions across the Washington, D.C. metropolitan area and Pennsylvania and West Virginia can result in jail time of up to a year.
- As part of AFF’s commitment through TFPWI is to create a Trash Free Potomac, a region-wide public education campaign has been launched.
- The campaign is designed to: raise public awareness and understanding of the existing trash issues; lead citizens to change their behavior; and ultimately, to reduce the amount of litter reaching our waterways via storm drains, illegal dumping and wind-blown litter.

Research

- AFF commissioned unique market research in 2008 to understand littering behavior and attitudes across the watershed. In 2009, further research was conducted in order to further

understand *why* people litter in an effort to, ultimately, change their behaviors. This research included:

- Engaging stakeholders through one-on-one telephone interviews;
- Developing concept statements and creative images tested through focus groups in Fairfax County in Virginia; Montgomery and Washington Counties in Maryland and throughout Washington, D.C.;
- Psychologist interviews with selected respondents to explore barriers and motives.

Message Three: *Making the connection to clean land, safe water and healthy lives.*

Improperly disposed trash contributes to filth, disease-causing bacteria and toxins harmful to you and those you love. Taking personal responsibility for our trash enables us to enjoy clean land, safe water and lead healthy lives.

Litter & Health

- By spoiling the watershed, we are creating a real public health issue for ourselves and our families. The water we use and the water we spoil are the same; the water in which you throw trash is the same water in which we drink and swim.
- Healthy and safety are the most important aspects of family life. By taking care of trash, you are protecting them today and for the future.
- Trash is mobile and universal. That plastic water bottle dumped along the banks of the Anacostia River might travel all the way to the Chesapeake Bay, touching other families and individuals on its way.
- Water running into the storm drains in the area does not go to a waste water treatment plant; what flows down the drain can flow right back into your drinking water. Road debris and hazardous waste pose a very real threat to the health and well-being of families who live around the Potomac Watershed by increasing breeding grounds for virus carrying insects and rodents.
- Improperly disposed trash contributes to filth and bacteria harmful to everyone, as well as leaking and/or leaching toxins from things like motor oil containers and car batteries.

Litter & You

- Litter negatively impacts community aesthetics. The trash surrounding your home reduces its value and damages area business, recreation and tourism.
- Trash can become a significant financial burden to families and individuals; a street with improperly discarded trash will reduce the value on homes, making it difficult to sell, result in an

increase in rents, or contribute to higher taxes in order to manage the storm drains and address the damage caused.

- When you improperly dispose of trash, it ends up in places other than where you throw it; possibly even in your own backyard.



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Campaign Sound bites

Sound bite #1

In partnership with the Alice Ferguson Foundation, XX County has recently launched a regional litter prevention campaign aimed at creating a trash free Potomac Watershed. You can help lead the way to clean land, safe water and healthy lives by taking care of your trash properly and encourage your friends, family and community to do so as well. For more information on the litter prevention movement, visit www.trashfreepotomac.org.

Sound bite #2

As part of the regional litter prevention movement to make our drinking source, the Potomac Watershed, trash free, XX County is encouraging each of you to help ensure clean land, safe water and healthy lives. By properly discarding trash into bins, recycling and helping to clean up your neighborhood, we will be one step closer to a trash free water source. For more information on the litter prevention campaign, visit www.trashfreepotomac.org.

Sound bite #3

You may not be able to see the Potomac River from your backyard, but believe it or not, trash that's discarded improperly miles and miles away from the river eventually finds its way into our waterways. Harmful toxins and bacteria from this trash kills wildlife, degrades marine habitats and threatens our own health. Please help XX County, in partnership with the Alice Ferguson Foundation, combat this serious problem by taking care of your trash and helping create clean land, safe water and healthy lives. For more information on litter prevention, visit www.trashfreepotomac.org.

Sound bite #4

Did you know that the storm drains you see around town lead into the Potomac River? Those storm drains are not trash cans and the water inside it does not get filtered before reaching the river, meaning the same litter you throw down the drain goes right into the same water that you drink, fish and recreate in. Start now and help the Alice Ferguson Foundation and XX County create clean land, safe water and healthy lives by properly discarding your trash into bins. To find out more information on litter prevention and how you can help, visit www.trashfreepotomac.org.



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Jurisdiction Media Targets

The following are specific media targets for each jurisdiction. As you build awareness in your community, consider reaching out to these outlets to announce campaign events, submit letters-to-the-editor and/or op-ed and share positive news stories. Please note that media outlets have a high turnover rate, with reporters often changing beats or moving on to new publications. When each jurisdiction is ready to engage the media, Ruder Finn can provide counsel and determine the appropriate, up-to-date contacts at all target outlets.

Jurisdiction	Target Media Outlets
Washington, D.C.	<p><u>Print</u> <i>Capitol Community News</i> <i>East of the River</i> <i>The Current Newspaper</i> <i>The Georgetown</i> <i>The Southwester</i> <i>Washington City Paper</i></p> <p><u>Broadcast</u> <i>WMAL-AM (630 AM)</i> <i>WPFW-FM (89.3 FM)</i></p>
Montgomery County	<p><u>Print</u> <i>Bethesda Magazine</i> <i>Montgomery County Gazette</i> <i>Montgomery County Sentinel</i> <i>Montgomery Village Gazette</i> <i>Takoma Voice</i></p> <p><u>Broadcast</u> <i>County Cable 6</i> <i>WIAD-FM (94.7 FM)</i></p>
Prince George’s County	<p><u>Print</u> <i>The Prince George’s Post</i> <i>Prince George’s Sentinel</i> <i>Laurel Leader</i></p> <p><u>Broadcast</u> <i>WHFS-AM (1580 AM)</i></p>

	<i>Prince George's Community TV (PGCTV)</i>
Arlington County	<p><u>Print</u> <i>Arlington Connection</i> <i>Arlington Sun Gazette</i> <i>Northern Virginia Magazine</i></p> <p><u>Broadcast</u> <i>WETA-FM (90.9 FM)</i> <i>WABS-AM (780 AM)</i> <i>WAVA-FM (105.1 FM)</i></p>
Fairfax County	<p><u>Print</u> <i>Fairfax Chronicle</i> <i>Fairfax Connection</i> <i>The Fairfax County Times</i> <i>Fairfax Leader</i> <i>Falls Church News-Press</i></p> <p><u>Broadcast</u> <i>WTVT-TV</i> <i>WNVG-TV</i> <i>WJFK-FM (106.7 FM)</i> <i>WFAX-AM (1200 AM)</i></p>



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Regional Anti-Litter Campaign
Media Outreach Tips

Please keep the following tips in mind as you conduct outreach around the Regional Anti-Litter Campaign.

- **Background Research**
 - In advance of contacting a reporter, it is helpful to:
 - Know the reporter's title, what "beat" (topic) they cover and review the publication's Website.
 - Obtain samples of the reporter's past work to determine the content and tone of their writing and the publication, if possible.
- **Introduction**
 - Before calling a reporter, send them any relevant background material (news release, advisory or fact sheet, spokesperson bio).
 - Your first phone contact should serve as a follow-up to materials you have already emailed.
 - Introduce yourself clearly; state your name and organization.
 - Inquire as to whether or not they have time to talk.
 - If they are on deadline, ask them when you can call them back.
 - If they are available to talk, let them know that you are following up on an email, indicate the day you sent the materials, and refresh their memory by giving them a brief overview of your story.
 - **Do not** read off the news release or advisory verbatim. **Instead**, select the top three most relevant points and present them in a conversational tone in 30 seconds or less.
- **Interest & Relevance**
 - Convey to the reporter why your story is of interest to their readers.
 - Make your story as relevant and compelling as possible, for instance:
 - Is there a financial impact?
 - Is this breaking news?
 - Are there new data findings to share?
 - Is this timely news surrounding current events?
 - Avoid jargon and lengthy descriptions. Speak in clear, plain language.
 - Stick to facts; avoid speculation or making promises you can't deliver.
- **Questions**
 - Leave the conversation open to questions. If the reporter asks questions, it is an indication that they are engaged and interested.
 - If you are unable to answer the reporter's questions, it is perfectly appropriate to say: "I don't have an answer to that, but I'll make sure to find out and get back to you."

- It is imperative that you get back to them promptly.
- Follow-up helps establish dialogue with the reporter. However, be careful that you do not become a nuisance by inundating them with phone calls and emails.
- Make the reporter's job as easy as possible by providing all the necessary information in a few brief conversations or emails.

- **Interview**
 - If there is a spokesperson available, offer the reporter a face-to-face or phone interview with that individual.
 - Accommodate the reporter's schedule as much as possible.

- **Follow-up**
 - Once you have supplied the reporter with all the necessary information, you should allow time for him/her to complete their story. It is appropriate to ask them when they think the story might run so that you have a sense of if/when you should follow up.
 - An email or phone call to follow-up on the story is appropriate closer to the expected air/print date to determine if the story will run.
 - Even if a reporter confirms your story will run, it is always possible it will be edited or cut completely. If the story isn't placed immediately, it may still be included at a later date.

- **Thank you**
 - Send a thank you note or email to the reporter to express gratitude for their time. This is especially important if your story gets placed, but equally important if the reporter has expressed particular interest or spent significant time on the story.
 - This courtesy leaves a positive and lasting impression on the reporter, making them more likely to call you the next time there is an opening for your story.



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Top 10 Questions Media May Ask

1. Who is the Alice Ferguson Foundation and what do they do?

- The Alice Ferguson Foundation is a leading environmental non-profit organization here in the D.C. metro area. It 's mission is to provide experiences that encourage connections between people, the natural environment, farming and the cultural heritage of the Potomac River Watershed, which lead to personal environmental responsibility. In 2005, as part of raising awareness around environmental responsibility, AFF created the Trash Free Potomac Watershed Initiative, a multi-year endeavor to address the growing trash problem in our region.

2. What is a watershed?

- A watershed (sometimes called a drainage basin) is the area of land where all of the water that is under it or drains off of it goes into the same place – in this case, the Potomac River. The water that drains into the river is called tributaries – streams, creeks, and smaller rivers that flow into a larger body of water. The Potomac Watershed actually makes up 80% of our area resident's drinking water. Each day the river and its tributaries supply about 500 million gallons of fresh water.

3. What does this litter prevention campaign seek to accomplish?

- The litter prevention campaign is a regional, multi-jurisdictional effort to raise public awareness and bring a stop to litter so that we can thrive and enjoy a healthy life with clean land and safe water. By educating the public on the existing trash issues, the campaign seeks to lead citizens to change their behavior and ultimately reduce the amount of litter reaching our waterways via storm drains, illegal dumping and wind-blown litter.

4. How does litter in the Potomac really relate to living a healthy life?

- Since trash is mobile, litter that is improperly discarded eventually finds its way into our waterways – our main source for drinking water. This litter contributes to filth, disease-causing bacteria and toxins that are harmful to not only humans, but wildlife. A large amount of the litter that ends up in the water actually stems from storm drains miles and miles away from the actual river. There's a big misconception that water in the storm drains go to a waste water treatment plant before the river. This isn't the case. What flows down the storm drain can flow right back into our drinking water.

5. Other than the health aspects, does litter affect residents in any other way?

- Absolutely. For one, trash surrounding your home reduces its value and damages area business, recreation and tourism. Secondly, trash can become a significant financial burden to families and individuals. A street with improperly discarded trash will reduce the value on homes, making it difficult to sell, result in an increase in renters, or contribute to higher taxes in order to manage the storm drains and address the damage caused.

6. Does law enforcement play a role in making the Potomac trash free?

Actually it does. There are litter laws in place that result in not only fines, but jail time for infractions. Fines for littering range from \$75 to as much as \$40,000 in areas throughout the Potomac Watershed.

7. How is your county involved in the campaign?

- We are great supporters of the litter prevention campaign and are working to actively engage county residents in understanding the issue and how they can help. **[Note: Please insert what your jurisdiction is specifically doing to help]**

8. What are some steps that people living within the Potomac Watershed need to take to make a trash free Potomac a reality?

- People can start by being mindful of their own trash. Make sure when throwing something away, that it physically goes inside the trash bin and if driving, keep a trash box on hand so that any litter can be properly discarded later. Next, talk to your friends and family. By setting an example and talking about litter prevention, awareness will spread and cause others to think about and improve upon their own trash habits.

9. What fundamental message(s) would you like to communicate to the public relating to the trash problem in and around the Watershed?

- A trash free Potomac Watershed is absolutely a realistic and achievable goal and is something about which each and every resident should care. By spoiling the watershed with litter, we are creating a real public health issue for ourselves, our families and our future. The water we use and the water we spoil are the same; the water in which you throw trash is the same water in which we drink, swim and fish.

10. Where can area residents find out more information on litter prevention?

- Residents can find out more information by visiting the Alice Ferguson Foundation's Website at www.trashfreepotomac.org .



YOUR LITTER HITS CLOSE TO HOME.

Piece by piece, litter adds up, and makes the places we go to every day unsafe and unhealthy.

Take control.
Take care of your trash.
www.trashfreepotomac.org



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DC GOVERNMENT AGENCY COMMUNICATION CAMPAIGN MEASUREMENTS

Regional Litter Prevention Campaign Goals:

Year 1: have 50 percent of the D.C. metro area exposed to the campaign

Year 2: have 75 percent of the watershed exposed to the campaign

Year 3: have 100 percent of the watershed exposed to the campaign

Years 4 and 5: maintain exposure and engagement

DC Campaign Team:

DDOE, DPW, DDOT, EOM, DPR, DRES, OP, DOH, OPEFM, DCPS, DC Water,

	Year 1	Year 2	Year 3	Year 4	Year 5
DC Campaign Goal	50% of DC Exposed to Campaign Message	75% of DC Exposed to Campaign Message	100% of DC Exposed to Campaign Message	100% of DC Exposed to Campaign Message	100% of DC Exposed to Campaign Message
Regional Metrics					
Earned media coverage	AFF will be doing the primary media outreach in Year 1 and will work in conjunction with DC Agencies in Year 2. AFF headquarters will handle local news broadcast outreach throughout the campaign, but may call upon DC Agencies for assistance and spokespeople.	Maintain Year 1 activities in addition to: One hit in primary daily publications such as: <i>Capital Community News: 60,000</i> <i>The Georgetown: 50,000</i> <i>Street Sense: 12,000</i> <i>Washington City Paper: 83,000</i> <i>InTowner: 30,000</i> <i>East of the River: 20,000</i> <i>The Southwester: 12,000</i> <i>D.C. North: 20,000</i> <i>The Current Newspapers: 54,000</i> <i>Washington Informer: 17,000</i> <i>American Free Press: 39,000</i> One story on local radio station <i>WMAL-AM</i> <i>WPFW-FM</i> <i>WTOP-FM</i>	Maintain Year 1 and 2 activities in addition to: Two hits in primary daily publications:	Maintain Year 1, 2 and 3 activities	Maintain Year 1, 2 and 3 activities
Radio PSA	If DC Agencies have purchased advertising space or has existing media buys for the distribution of PSAs, one radio PSA, provided in the AFF toolkit, on a local radio station would be ideal during June-August, such as: <i>WHUR-FM</i> <i>WPFW-FM</i> <i>NPR</i> <i>*Coordinate distribution with AFF</i>	Distribution of two radio PSAs throughout the year <i>*Coordinate distribution with AFF</i>	Maintain Year 2 activities <i>*Coordinate distribution with AFF</i>	Maintain Year 2 activities <i>*Coordinate distribution with AFF</i>	Maintain Year 2 activities <i>*Coordinate distribution with AFF</i>
Broadcast PSA	Using Agency YouTube Channels, Websites, and/or Facebook	Maintain Year 1 activities in addition to:	Maintain Year 1 and 2 activities	Maintain Year 1 and 2 activities	Maintain Year 1 and 2 activities

	(http://www.youtube.com/user/DDOEPublicInfo), place AFF campaign PSA's (such as the YouTube Challenge winning video) on the site.	If agencies purchased advertising space or has existing media buys for the distribution of a broadcast PSAs on a local network, the distribution of one broadcast PSA, provided by AFF, at any point throughout the year is desirable.			
DC Government Metrics					
Interagency "Trash Free Management Team"	Established and Meet monthly or quarterly with support of top senior leadership Establish Jurisdictional "Trash Free Coordinator"	Meet monthly with staff level managers Meet with agency PIOs, as needed. Meet biannually with agency leaders.	Meet monthly with staff level managers Meet with agency PIOs, as needed. Meet biannually with agency leaders.	Meet monthly with staff level managers Meet with agency PIOs, as needed. Meet biannually with agency leaders.	Meet monthly with staff level managers Meet with agency PIOs, as needed. Meet biannually with agency leaders.
Newsletter articles /eBlasts	Placing AFF toolkit items In three newsletter articles/eBlasts per year using the eNewsletter hosted by the D.C. government (for example, <i>Protecting the Environment Makes Good Business Sense</i>), and/or <i>Foliage</i> , the DDOE eNewsletter.	Five newsletter articles/eBlasts per year using the toolkit provided by AFF <ul style="list-style-type: none"> In addition to agency eNewsletters, the student/education friendly blasts should be distributed in the DC Government's <i>Education Matters</i> eNewsletter 	Six newsletter articles/eBlasts per year using the toolkit provided by AFF	Maintain Year 3 activities	Maintain Year 3 activities
Letters-to-the-Editor/Bylined articles	N/A	Submit and place one LTE or bylined article per year, using the toolkit template provided by AFF	Submit and place two LTE or bylined articles per year, using the toolkit template provided by AFF	Maintain Year 3 activities	Maintain Year 3 activities
Post copy on community website	Post copy provided in the AFF toolkit on websites that DC Agencies already have access to : <ul style="list-style-type: none"> www.green.dc.gov www.doe.dc.gov www.serve.dc.gov 	Maintain Year 1 activities in addition to postings on the following websites: <ul style="list-style-type: none"> www.washingtondcguide.com http://www.destinationdc.org/ www.jdland.com www.cao.house.gov/greenthecapitol/ 	Maintain Year 1 and 2 activities in addition to postings on the following websites: <ul style="list-style-type: none"> www.logancircle.org www.dupont-circle.org www.adamsmorganonline.com www.georgetowndc.com 	Maintain Year 1, 2 and 3 activities	Maintain Year 1, 2 and 3 activities

<p>Community</p>	<p>Speak about the campaign at various community meetings, including ANC or Citizens Assoc. meetings using the sound bites provided.</p> <p>Support Community Trash Free Efforts in DC Neighborhoods</p>	<p>Maintain Year 1 activities</p>	<p>Maintain Year 1 activities</p>	<p>Maintain Year 1 activities</p>	<p>Maintain Year 1 activities</p>
<p>Social media</p>	<p>Using each agency's Facebook page:</p> <ul style="list-style-type: none"> • Post once per month using templates provided in the AFF toolkit. • Post the YouTube Video Contest Grand Prize Winner submission as well as the Washington, D.C. Runner Up. • Post upcoming AFF events relating to the campaign (for example the Trash Summit, Annual Cleanup, etc) <p>Using your agency's Twitter page,</p> <ul style="list-style-type: none"> • One post every two months or coincide with campaign events 	<p>Using each agency's Facebook page:</p> <ul style="list-style-type: none"> • Post twice a per month using templates provided in the AFF toolkit • Continue to post any video contest winners submissions or AFF PSAs as it becomes available • Continue to post upcoming AFF events relating the campaign (for example the Trash Summit, Annual Cleanup, etc), providing commentary on the importance of the event in addition to the outcome <p>Using each agency's Twitter page,</p> <ul style="list-style-type: none"> • Continue to post every two months or coincide with campaign events 	<p>Maintain Year 2 activities</p>	<p>Maintain Year 2 activities</p>	<p>Maintain Year 2 activities</p>
<p>Outside Advertisements</p>	<p>IF Agency has purchased advertising space or has existing media buys, distribute:</p> <ul style="list-style-type: none"> • Bus shelter posters • metro car ads • Bus ads • Billboards <p>Distribute:</p>	<ul style="list-style-type: none"> • Increase number of posters and flyers by 25% • Distribute decals to: <ul style="list-style-type: none"> ○ residents for garbage cans and vehicles ○ city street sweepers and garbage trucks 	<p>Maintain distribution of Year 2 activities</p>	<p>Maintain distribution of Year 2 activities</p>	<p>Maintain distribution of Year 2 activities</p>

	<ul style="list-style-type: none"> Flyers Decals Bumper Stickers 	<ul style="list-style-type: none"> ○ city garbage cans • Distribute bumper stickers to school children (this will be in conjunction with student outreach/book bag flyer, as seen in the below bracket) 			
Online Advertisement	<ul style="list-style-type: none"> Post banner ad on agency websites Banner ads on local radio station websites 	<ul style="list-style-type: none"> Post banner ad on additional websites 	Maintain Year 2 activities	Maintain Year 2 activities	Maintain Year 2 activities
Book Bag Flyer	Distribute the first book bag flyer (a word search) through any child based outreach outlet.	<p>Maintain Year 1 activities in addition to:</p> <ul style="list-style-type: none"> Include a book bag flyer once per year in the DC Government <i>Education Matters</i> eNewsletter Distribute a book bag flyer once per year to public elementary schools in D.C. <p><i>*All material will be provided in the AFF toolkit</i></p>	<p>Maintain Year 1 and 2 activities in addition to:</p> <ul style="list-style-type: none"> Distribute a book bag flyer twice a year to public elementary schools in D.C. <p><i>*All material will be provided in the AFF toolkit</i></p>	<p>Maintain distribution of Year 1, 2, and 3 activities</p> <p><i>*All material will be provided in the AFF toolkit</i></p>	<p>Maintain distribution of Year 1, 2 and 3 activities</p> <p><i>*All material will be provided in the AFF toolkit</i></p>
Sound bites	<p>Have a DC spokesperson incorporate sound bites provided in the AFF toolkit in community events, fairs, etc that the DC agency is conducting or participating in, such as:</p> <ul style="list-style-type: none"> The DDOE Free Backyard Wildlife Habitat Workshop Series Water Quality/TMDL meeting/workshops Community summer fairs (i.e. OLA's Festival de Verano Summer Fair) 	Maintain Year 1 activities	Maintain Year 1 activities	Maintain Year 1 activities	Maintain Year 1 activities
Evaluation	Conduct phone survey using findings from the 2010 survey implemented by OpinionWorks	<p>TBD</p> <p><i>*Based on DC funding</i></p>	<p>TBD</p> <p><i>*Based on DC funding</i></p>	<p>TBD</p> <p><i>*Based on DC funding</i></p>	<p>TBD</p> <p><i>*Based on DC funding</i></p>

DEANWOOD

VISIBLE TRASH SURVEYS



For The

ALICE FERGUSON FOUNDATION

Prepared by
James R. Collier and Cynthia A. Collier

August, 2011

FOREWORD

We appreciate the assistance of John Wasiutynski, formerly of DDOE, who lent a hand on the survey of October 8, 2010, for which we duly give him credit.

We also appreciate all the members of the Deanwood and Kelly Miller neighborhoods who took the time to speak with us and shine the light of their knowledge and experience on the data. No one knows better than they do what is going on in their communities and what may help to solve the trash problem. We were happy to listen more than we spoke.

Though the original purpose of the monitoring, to determine the effectiveness of community outreach on reducing trash levels, could not be completed at this time, a year's worth of monitoring cannot help but yield useful data.

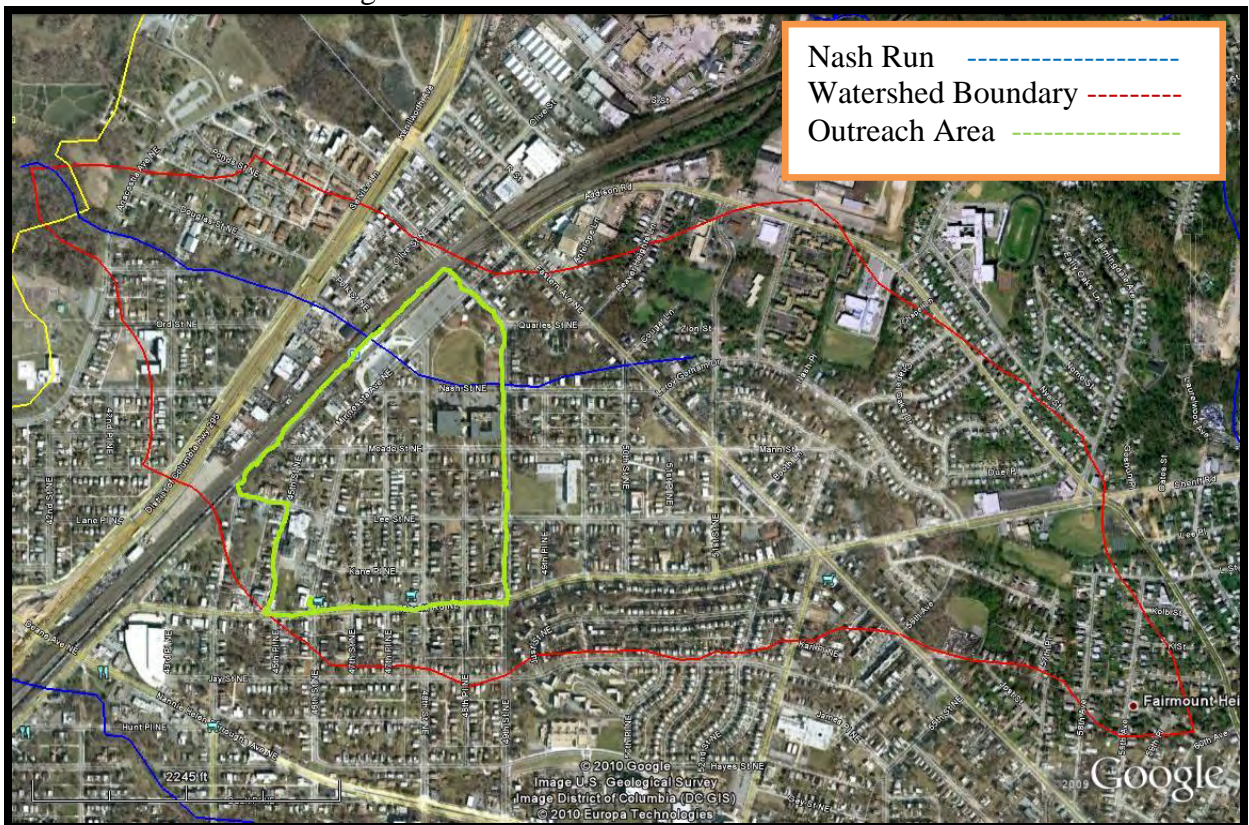
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FOUR: DATA ANALYSIS <i>This chapter provides graphs and tables of the trash levels over the months and discusses factors affecting the levels. Variations of the components of the trash are analyzed and events that affected the trash are discussed.</i>	15
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CHAPTER ONE BACKGROUND

The Anacostia River is impaired by trash. A Total Maximum Daily Load for trash has been prepared and an allocation is expected to be in the next issuance of the DC Stormwater Permit. This becomes an enforceable limit that must be achieved. The DC Department of the Environment (DDOE) wishes to quantify the reductions in litter achievable by public education and outreach. This quantification will allow DDOE to compare this type of program to other trash reduction programs, such as street sweeping, and then to develop a cost effective solution to the discharge of trash to the waterways. DDOE awarded a grant to the Alice Ferguson Foundation to conduct an outreach and education program in the Deanwood neighborhood of the District of Columbia and to conduct a monitoring study to document the effectiveness of the outreach program. The neighborhood is located near the eastern border with Maryland in the Nash Run watershed, part of the Anacostia River watershed, though the tributary is enclosed in a storm sewer in this area and not visible. The portion of Deanwood selected for the study area is predominately residential, with two public schools, two charter schools and a recreation center. There are several commercial establishments along Sheriff Road. The first phase of the Trash Free Deanwood outreach effort began in September, 2010. The study area is shown in Figure 1-1.

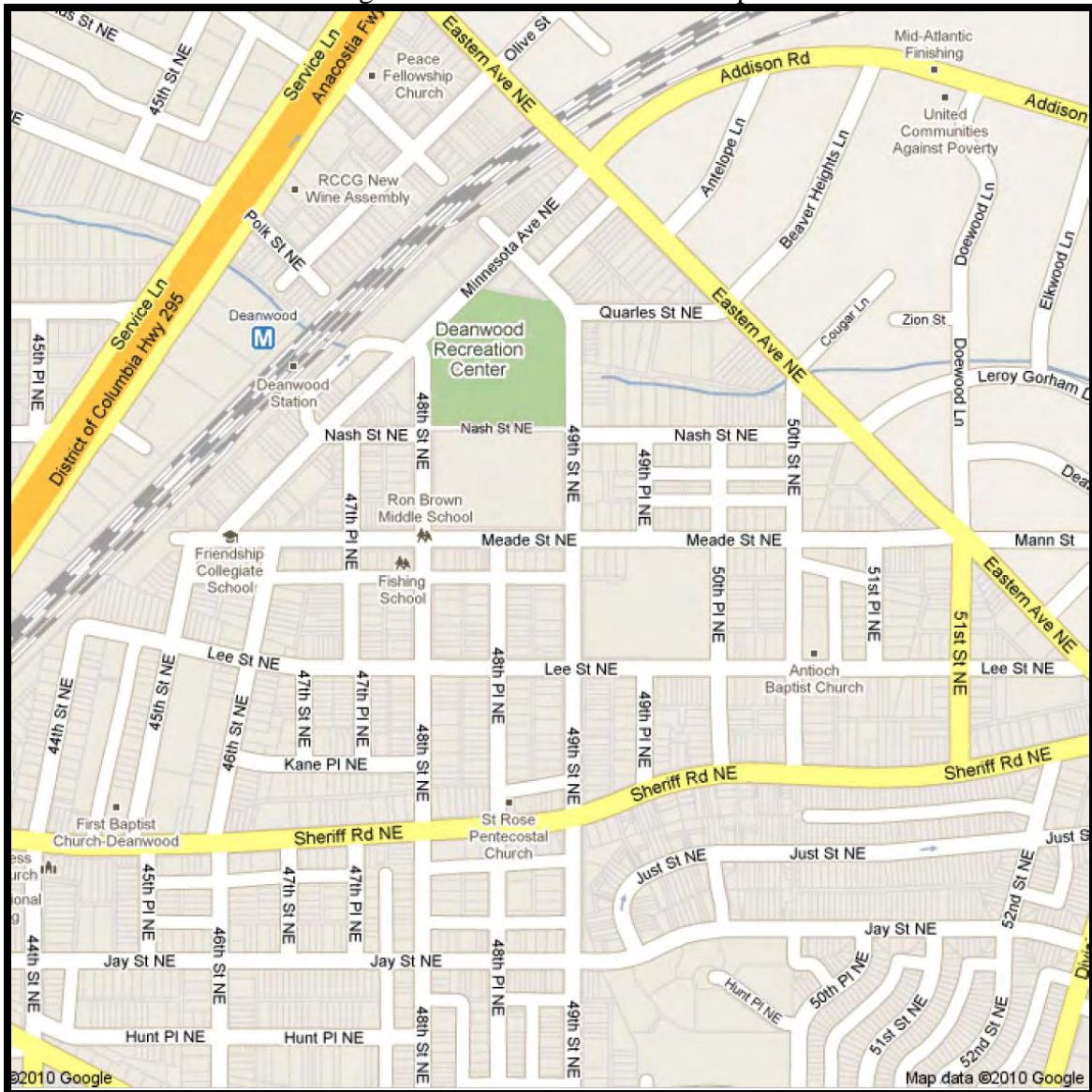
Figure 1-1. Deanwood Outreach Area



Trash Free Deanwood Monitoring Project

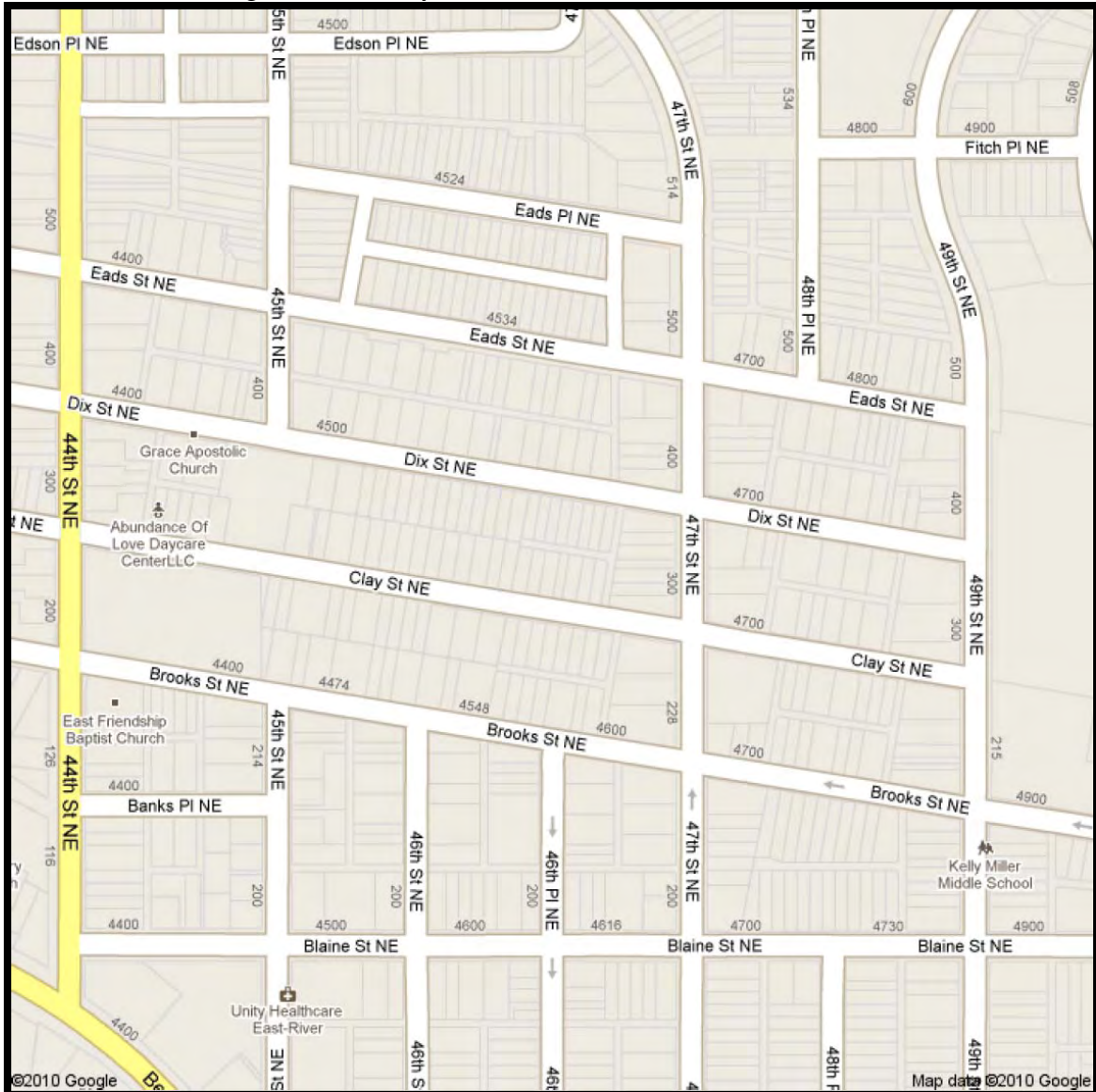
The monitoring component of the Deanwood project was designed to determine the amounts and types of trash that are reduced by the targeted public outreach program in the Deanwood community. Monitoring was initiated prior to the outreach effort to establish a baseline. Figure 1-2 shows the streets in the study area.

Figure 1-2. Deanwood Street Map



In order to account for any short term or seasonal effects, a control area was monitored simultaneously. The control area was in the Watts Branch drainage basin adjacent to Kelly Miller Middle School. The process used for the selection of the control area is contained in Appendix B. Figure 1-3 shows the streets in the control area.

Figure 1-3. Kelly Miller Middle School Control Area



CHAPTER TWO MONITORING PLAN

Introduction

Deanwood is an old and established community in the District of Columbia. Windshield trash surveys had been conducted quarterly in Deanwood during the preparation of the Anacostia Watershed Trash Reduction Plan. This prior data showed street trash loads to vary 20% from one survey to the next. However, the only detailed street trash survey in Deanwood was along the commercial strip of the I-295 service road, outside the current project's study area. The methods used in the current monitoring effort were modified from the Metropolitan Washington Council of Governments methods and have been used in four other studies in the Anacostia Basin.

Survey Plan

For three weeks starting in late July, 2010, one survey a week was conducted of 14 blocks each in Deanwood and Kelly Miller. After that, two surveys were conducted each month. Total length of streets surveyed was 6,360 feet in Deanwood and 6,320 feet in Kelly Miller. Only one side of each block was surveyed from the centerline of the street to about 3 feet beyond the non-street edge of the sidewalk, the approximate boundary of public space. The same side of the street was surveyed each time.

An effort was made to conduct surveys on the same day of the week, Friday, when possible to reduce day-of-the-week-dependent variability observed in previous studies. When special events such as community cleanups were conducted, the surveys were performed on the days immediately before and after the event to provide documentation of the results, to the extent that weather allowed.

Sampling Methods

The sampling methodology consisted of walking down the sidewalk with one person observing and calling out the type and quantity of trash items and a second person recording the observation. Quality control checks were performed by reversing the roles of the personnel and comparing the results.

All items of trash over one square inch in dimension were counted and left in place. This includes item as small as soda bottle caps up to items as large as television sets and furniture. Discretion was used to determine if a large item had been set out for bulk trash removal by the Department of Public Works, disqualifying it as a relevant trash sample.

Surveys were not conducted when more than 20% of the ground was obscured with leaves or snow.

Streets Surveyed

The survey routes in Deanwood and Kelly Miller are shown in Figures 2-1 and 2-2.

Deanwood

Total length = 6360'

49th Street from Sheriff Road to Quarles Street, 4 blocks, Length = 2000'

- Sheriff to Lee
- Lee to Meade
- Meade to Nash
- Nash to Quarles

48th Street from Minnesota Avenue to Sheriff Road, 4 blocks, Length = 1900'

- Minnesota to Nash
- Nash to Meade
- Meade to Lee
- Lee to Sheriff

47th Place from Kane Place to Nash Street, 3 blocks, Length = 1280'

- Kane to Lee
- Lee to Meade
- Meade to Nash

46th Street from Meade Street to Sheriff Road, 3 blocks, Length = 1180'

- Meade to Lee
- Lee to Kane
- Kane to Sheriff

Figure 2-1. Deanwood Survey Streets, with side of street indicated



Watts - Kelly Miller

Total Length = 6,320 feet

Brooks Street from 49th Street to 44th Street, 5 blocks, Length = 1770'

- 49 St to 47 St
- 47 St to 46 Pl
- 46 Pl to 46 St
- 46 St to 45 St
- 45 St to 44 St

Clay Street from 44th Street to 49th Street, 2 blocks, Length = 1780'

- 44 St to 47 St
- 47 St to 49 St

Dix Street from 49th Street to 44th Street, 3 blocks, Length = 1770'

- 49 St to 47 St
- 47 St to 45 St
- 45 St to 44 St

49th Street from Eads Street to Blaine Street, 5 blocks, Length = 1000'

- Eads St to Dix St
- Dix St to Clay St
- Clay St to Brooks St
- Brooks St to Blaine St

Figure 2-2. Kelly Miller Middle School Area Survey Streets, with side of street indicated



Surveys

The dates of the surveys and pertinent facts are shown in Table 2-1.

Table 2-1 Field Surveys

Month	Date	Notes
July, 2010	30	J. Collier observer, C. Collier recorder (the norm)
August, 2010	6	
	14	C. Collier observer for Kelly Miller
September, 2010	3	School started 8/23
	17	
October, 2010	8	Survey performed by C. Collier & J. Wasiutynski
	29	
November, 2010	19	DPW Leaf Raking 11/17
	21	Cleanups 11/20
December, 2010	31	Only one survey due to excessive snow cover DPW Leaf Raking: Deanwood 12/21, Kelly Miller 12/31
January, 2011	16	
	20	MLK Day Cleanup 1/17
February, 2011	11	
	26	
March, 2011	11	
	25	St Patrick's Day 3/17 DPW Spring Raking in Deanwood
April, 2011	15	Spring Break 4/15-4/25 Posted street sweeping starts for 49 th Street in Kelly Miller
	29	Yard mowing begun by residents
May, 2011	6	
	25	
June, 2011	17	49 th Street swept in Deanwood; 49 th Brooks, and Clay swept in Kelly Miller
	24	School ends 6/21
July, 2011	8	July 4th fireworks remnants

Data Management

The numbers of trash and debris items were compiled on paper data sheets in the field. The final data sheets had 45 categories of items. Because of the prevalence of fruit based litter such as orange and banana peels, a category was added during the study called “organics.” Similarly, cheap jewelry, metal forks and spoons, and small batteries for hand held electronic devices were common, so a category called “other metal” was added. There was one data sheet per block and 28 data sheets per survey. The information on the field sheets was transferred to a Microsoft Excel database. Data entry was checked for errors. A sample of the field data sheet and definitions are in Appendix A.

CHAPTER THREE GENERAL CONDITIONS

During the study period there were several types of changes that had the potential to affect the amounts of trash on the streets. The use of a control area minimized the impact of some of these conditions on the data.

Snow

There was a significant snow fall during the winter months, and the surveys had to be scheduled to avoid periods when the ground was covered with snow. The angle of the sun's path causes snow to melt on the south side of the streets before the north side. Fortunately, the survey routes were not laid out to be always on the same side of all the streets, but alternated, evening out the effects of sun angle. During the melting process, paper items became soaked with water and coated with the black particulate matter common to urban snow, making the items difficult to identify by category. When the original form of a paper item could not be discerned, it was entered into the "other paper" category. Following snowmelt, the more general "other paper" category became inflated while the more specific categories were low.

Snow exacerbated another oddity. A considerable amount of the food wrapper trash in Deanwood consisted of waxed paper candy wrappers. Those wrappers seemed to be an emergency food source for rodents when they could not dig through the snow to get their normal food. Partially gnawed wrappers were observed. This behavior likely occurs to some degree year-round since these wrappers disappear inexplicably quickly at other times, but was particularly noticeable when other food sources disappeared.

The weather station record for the National Airport was used to access snowfall data and it is shown in Table 3-1.

Table 3-1 Snowfall

MONTH	SNOWFALL (in inches)
December, 2010	2.1
January, 2011	7.3
February, 2011	0.5
March, 2011	0.2

Rain

There was 37 inches of precipitation during the period of July, 2010, through June, 2011.

The land-use characteristics of the two surveyed areas were very similar and both had a 40-foot change in elevation. This implies that slope of the gutters and the depth and velocity of water in the gutters would be similar, thereby causing similar amounts of trash to be moved to the storm sewer inlets. Not only does rainfall wash trash into the storm sewer, it also causes a degradation of paper items. In particular, tissues and napkins disintegrate quickly once wet. The monthly total rainfall and the significant rainfall events that were over 1 inch are shown in Table 3-2.

Table 3-2 Rainfall

Month	Total Precipitation Inches	Major Storm Event Date	Major Storm Event Inches
July, 2010	5.7	Prior to Survey	1.86
August, 2010	2.59		
September, 2010	6.02	9/30	4.66
October, 2010	3.40	10/14	1.26
		10/28	1.27
November, 2010	2.22	11/4	1.4
December, 2010	1.78		
January, 2011	2.25		
February, 2011	2.12		
March, 2011	4.4	3/6	1.4
		3/10	1.39
April, 2011	3.2		
May, 2011	1.7		
June, 2011	1.68		
July 1-8, 2011	0.94		

Temperature

The seasonal change in temperature causes the autumn leaf fall. In Washington, DC, being known as the “City of Trees,” it is no surprise that fallen leaves can cover a significant portion of the ground. This affects the ability to see and count trash items because leaves tend to accumulate in the same places as wind-blown trash. The DC

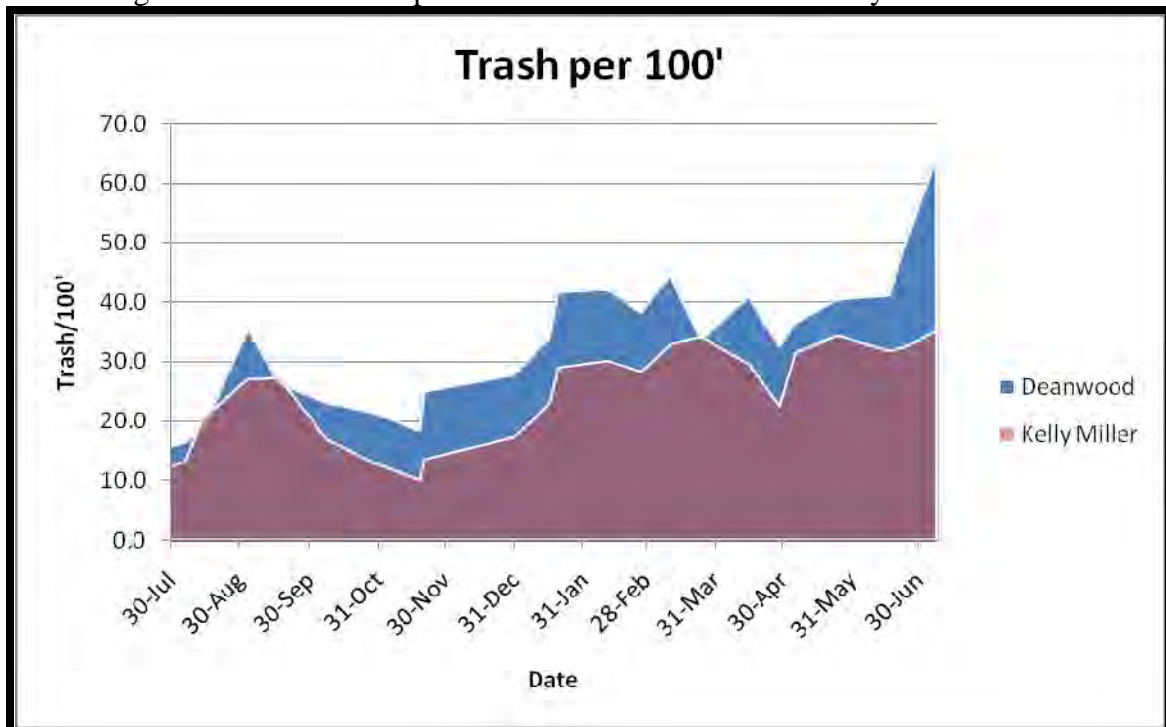
Department of Public Works schedules two leaf cleanings in early winter during which the leaves in the public space are hand-raked to the curb and then removed with a vacuum truck. An additional raking of the public space occurs in the Spring. Surveys were conducted only when leaf coverage of the ground was less than 20 percent.

Extremely cold temperatures appear to affect the amount of pedestrian traffic and the willingness and ability of the residents to maintain their yard and the public space.

CHAPTER FOUR DATA ANALYSIS

The block by block data for each area was summed and then divided by the total length of street surveyed to derive the number of trash items per one hundred feet in each area. This allowed a comparison of the two areas for trends over the survey period. As shown in Figure 4-1, both areas started out with similar levels of trash in late July, 2010, and began to increase, with a sharp peak following the opening of the schools. Near the end of September, the number of items per 100 feet in the two areas diverged, with Deanwood having about 10 more items/100' than Kelly Miller. Trash levels then decreased to a minimum in mid-November and then increased again. Around the middle of January, the trash levels stabilized in each area and continued with minor variation until the end of the study when Deanwood experienced a sharp increase, largely from 4th of July fireworks remnants. In Deanwood, 48,721 pieces of trash were counted during the year. In Kelly Miller, 35,842 pieces of trash were counted. Persistent items of trash were re-counted each survey.

Figure 4-1 Total Trash per 100 Feet in Deanwood and Kelly Miller Areas



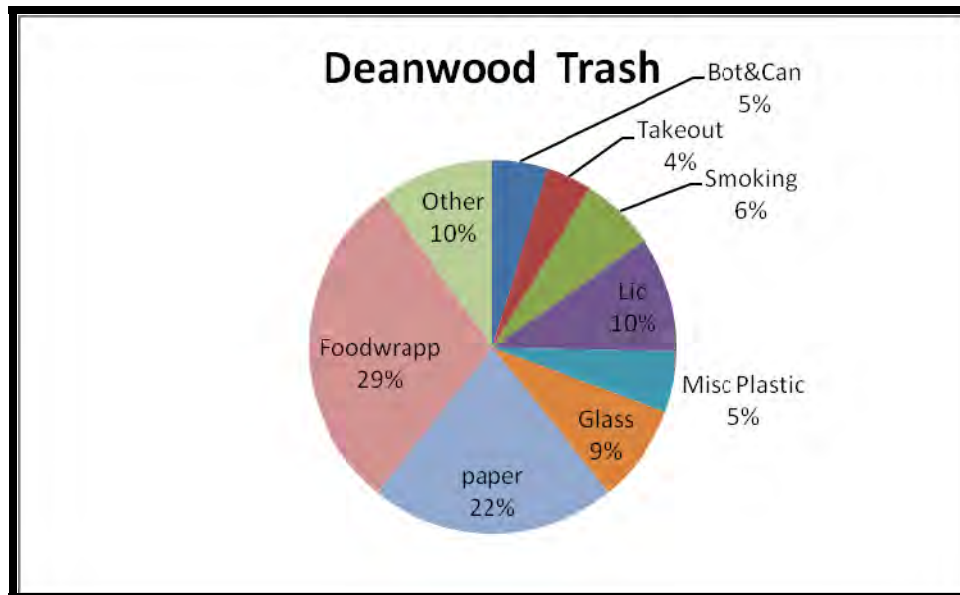
Trash Composition

In the Deanwood area, the largest two components of the trash were food wrappers and paper-based items, as shown in Table 4-1 and Figure 4-2. The sum of all other items was about 10 percent of the total. The category “miscellaneous plastic” includes such things as broken cell phones parts, headphones and ballpoint pens. Debris was normally less than one percent of the total trash.

Table 4-1 Deanwood Trash Composition

Food Wrappers	29.05%
Paper-based	21.73%
All Other Items	10.10%
Lids & Straws	9.91%
Broken Glass	8.51%
Smoking Related	6.50%
Misc. Plastic	5.29%
Bottles & Cans	4.82%
Takeout Containers	4.09%

Figure 4-2 Deanwood Trash Composition



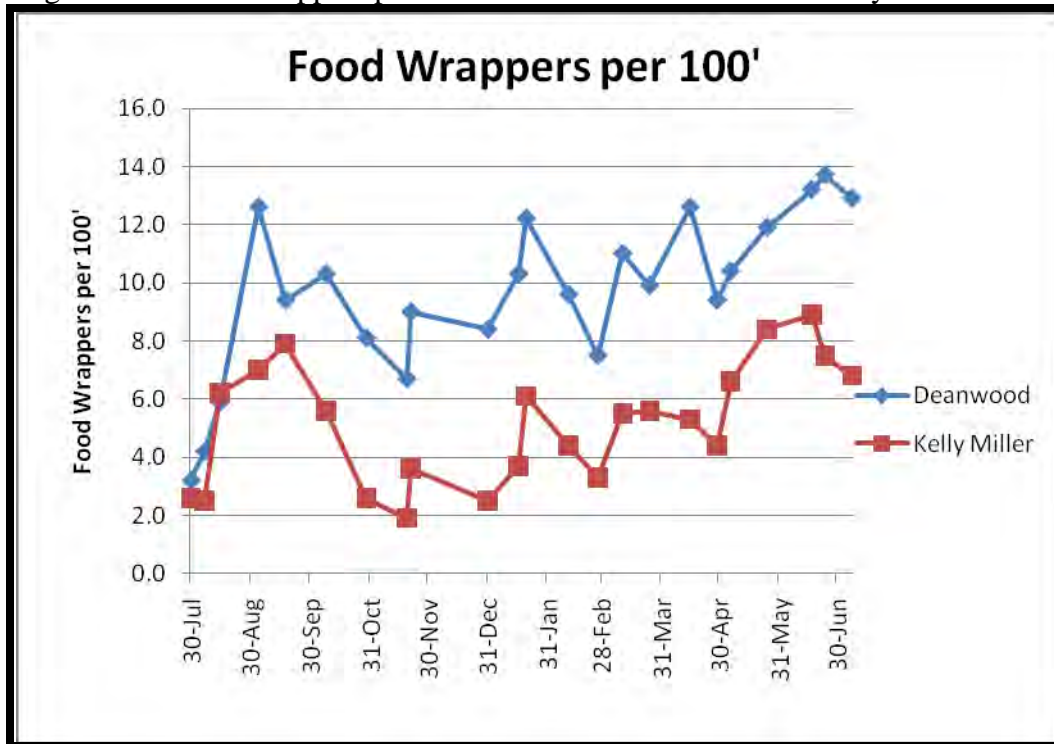
The three most persistent items seemed to be pieces of broken glass, plastic cigar tips and metal bottle caps such as from beer bottles. These are some of the smallest items that get counted. They do not seem to rake up well, nor are they large enough that a person will stoop to pick them up. Because of their weight, they neither float nor blow away. Their composition resists deterioration. They tend to become imbedded in dirt and sand. The

prevalence of these small items tends to reduce the numerically calculated effectiveness of the DPW leaf raking, even though the aesthetic value of the leaf raking as a trash removal method is clearly very high.

Food Wrappers

The category “food wrappers” is composed of such things as candy bar packaging, ice cream bar packaging, ice cream sticks, paper from small candies such as tootsie rolls and lollipops, chip bags, and cookie boxes. Food wrappers are quite prevalent in the streams and on land. As shown in Figure 4-3, both of the study areas began with about 3 food wrappers per 100’ and began to increase with the opening of school; however, the increase in the Deanwood area quickly rose beyond the Kelly Miller area levels by about 5-6 pieces/100’. The peak was followed by a decline until mid November and then began increasing again. The decrease may have been due to leaf coverage camouflaging and obscuring the wrappers since food wrappers will blow around and accumulate in the same places as leaves. This tendency to mingle with leaves increases the likelihood the food wrappers will be removed during leaf cleanup.

Figure 4-3 Food Wrappers per 100 feet in the Deanwood and Kelly Miller Areas

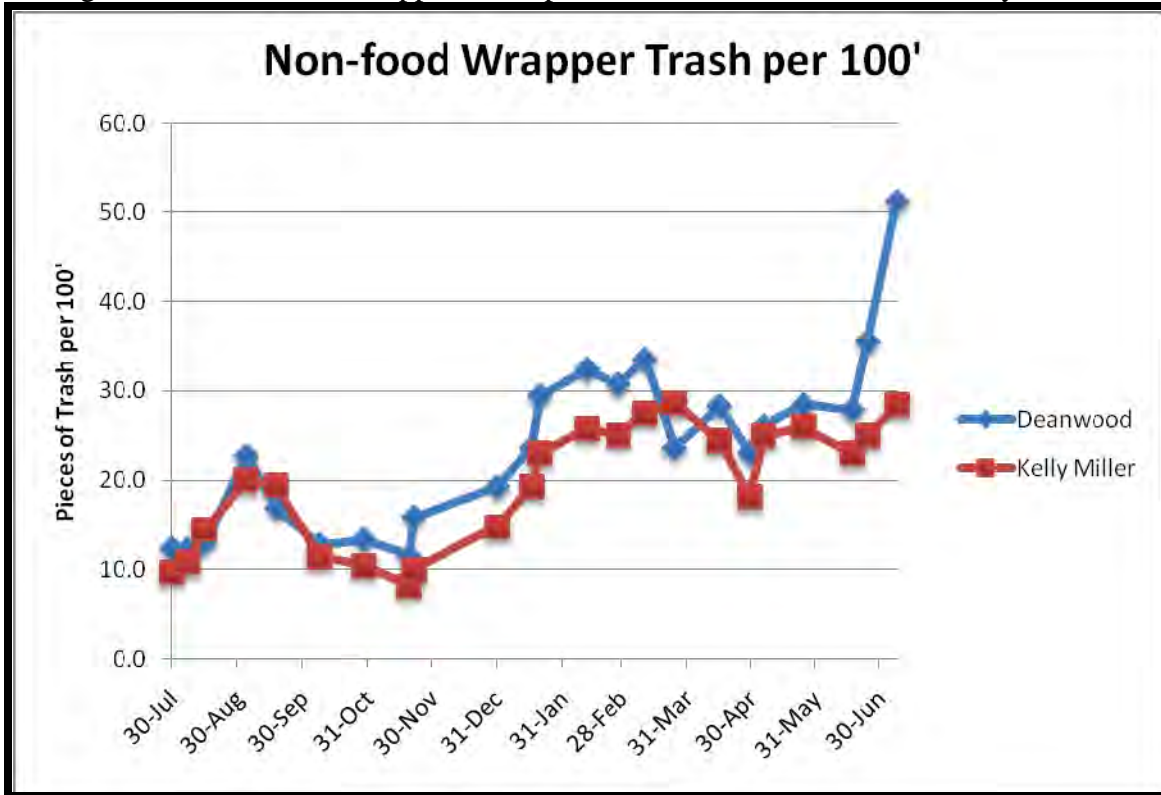


Non-Food Wrapper Trash

The two areas had extraordinarily similar levels of trash once the food wrappers were subtracted from the counts. There was a general increase from 10 items/100’ to 30 items/100’ excluding the late June/early July Deanwood increase in broken glass and

fireworks remnants. This is shown in Figure 4-4. The remarkable point is the similarity of the overall pattern of the two areas.

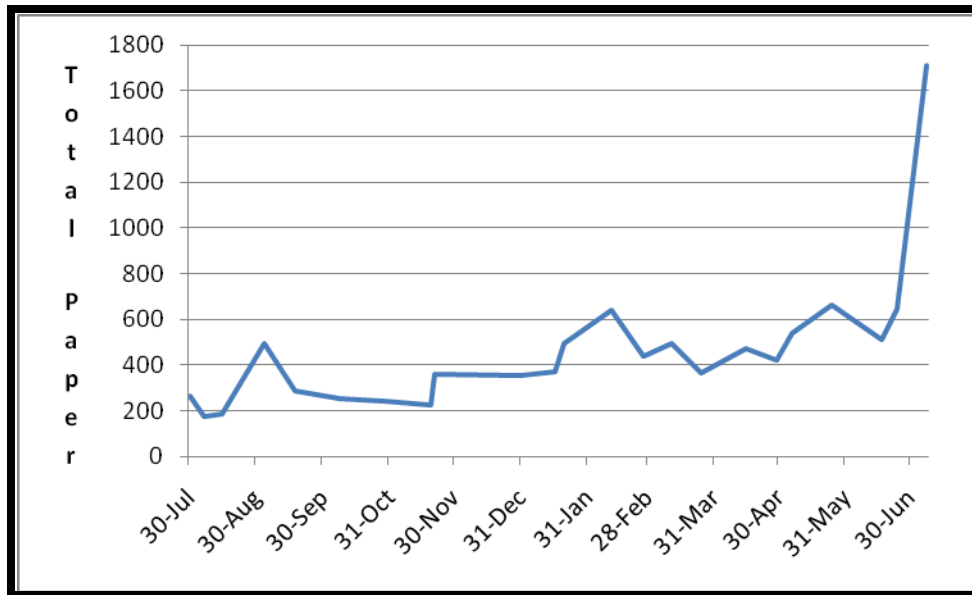
Figure 4-4 Non-Food Wrapper Trash per 100 Feet in Deanwood and Kelly Miller



Paper Products

The data was inspected for trends in paper based items such as paper bags, cups, napkins, newspapers, etc. Food wrappers were not included as paper products because the majority are synthetic, but a significant fraction are actually made from paper. As was found in the Phase I study, paper composed 19.7% of the total items in Deanwood excluding fireworks remnants and 21.7% including the remnants. Napkins, tissues and paper towels account for one third of the paper products. As shown in Figure 4-5, paper products demonstrated the same general pattern of occurrence observed in the overall trash levels and increased and decreased with the total trash levels. In late winter and early spring, following the snow melting, a lot of disintegrated napkins and paper towels could still be counted because they made discrete piles of fibers.

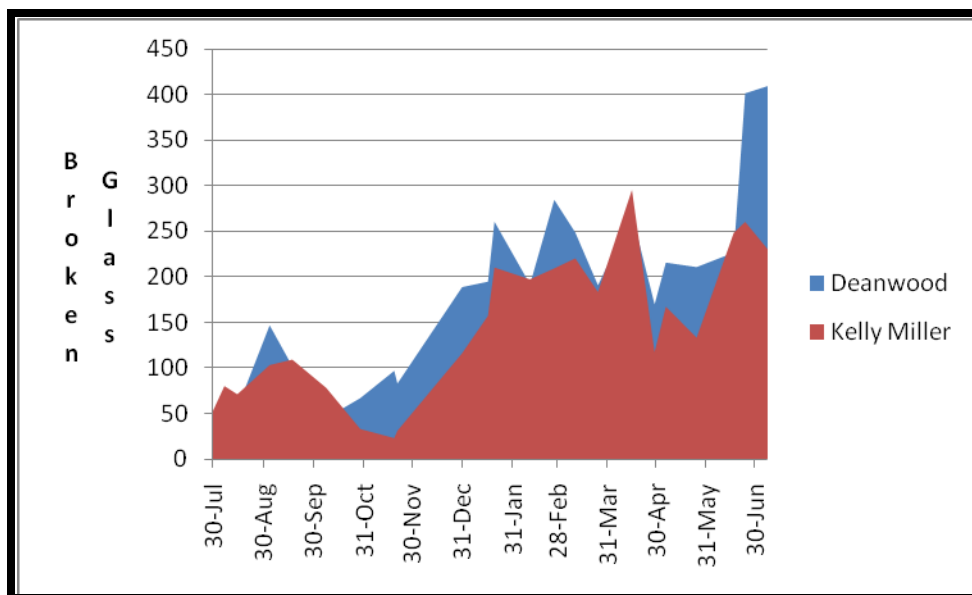
Figure 4-5 Paper Products in Deanwood



Broken Glass

Broken pieces of glass were counted as part of the trash. Since glass is heavy and settles into the dirt, visibility of the ground is important. The presence of leaves, snow, the soot from snow, and high grass may cause counts to be low. On several occasions, the number of pieces of glass that would result from one broken bottle was counted. One bottle results in about 10-20 pieces of glass larger than one inch. One vandalized truck mirror resulted in 23 shards of mirror on the ground. This item could have been counted as either small automobile debris or 23 pieces of broken glass. During the latter part of the study (late June and early July of 2011), there were five van and automobile windows shattered, with four of them being on the backside of Ron Brown Middle School. Safety glass generally breaks into pieces smaller than one inch and presented a challenge in counting. There were generally 20 pieces or small groups of pieces over one inch in size per shattered window. The vandalism of the truck mirror and vehicle windows caused a 30 percent increase in broken glass for the Deanwood neighborhood. Following St Patrick's Day there was a large spike in broken glass in the Kelly Miller area from broken beer bottles. The general pattern of total glass is similar to the pattern of total trash. The total amount of broken glass in both areas is shown in Figure 4-6.

Figure 4-6 Total Broken Glass in Deanwood and Kelly Miller



Miscellaneous Recreational Items

Fireworks were included in the miscellaneous recreational items category. During the majority of the year this category has about 10 items in it during a survey or less than one per block and usually were found near the school. The data of the July 8 survey showed 978 remnants of fireworks in the Deanwood area. This one category alone caused an increase in the trash levels by 15.6 items/100'. This coupled with the vandalism that caused the increase in broken glass explains the dramatic increase in trash levels in Deanwood at the end of the study period.

Weather Effects

Prior to the initiation of the surveys there was a rainfall event of 1.86 inches which may have washed away a significant fraction of the trash, in particular a lot of the fireworks remnants. The next large rainfall event was 4.66 inches of rain on September 30. Trash reductions of 12% in Deanwood and 38% in Kelly Miller were observed between the surveys of September 17 and October 8. There were then two rainfall events of 1.26 inches each between the October 8 survey and the October 29 survey. There was a 7% reduction in items counted in Deanwood and a 24% in Kelly Miller. Following the October 29 survey it rained 1.4 inches on November 4 and DPW raked the leaves on November 17. There was a reduction in trash on the November 18 survey of 15% in Deanwood and 23% in Kelly Miller.

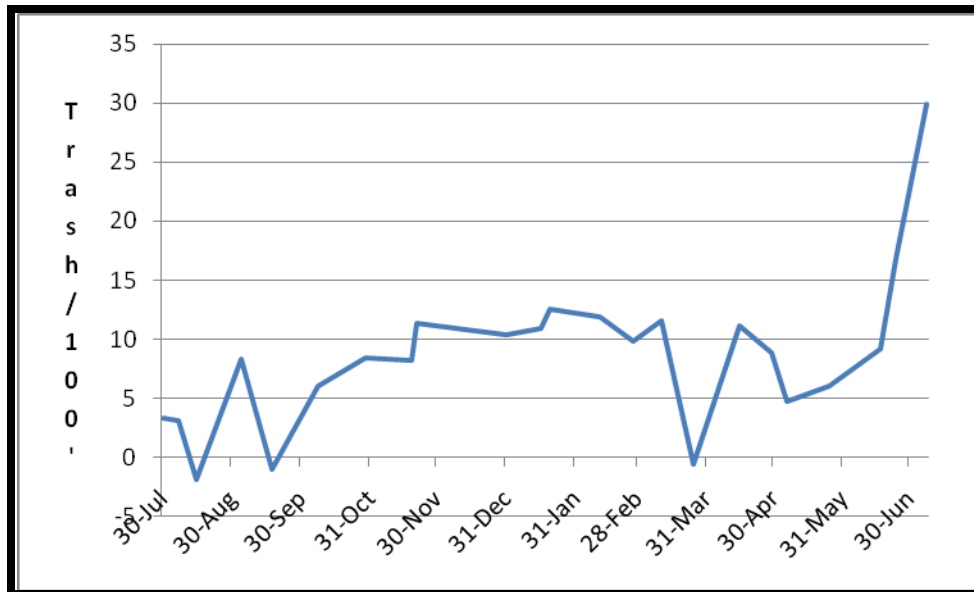
The impact of leaf fall and visibility of trash is difficult to assess, but is important. Wind and cars passing blows leaves into the gutter, which is also where a significant amount of trash accumulates. While there may not be a large percentage of the ground covered by leaves, they are in the same places that trash lodges. Chain link fences also accumulate windblown items.

Major rainfall events occurred in early March with two rains of 1.4 inches each immediately preceding the March 11 survey. Trash levels increased in both of the areas by 16%. Trash levels in this period of time were generally increasing and the increasing trend may have obscured the rainfall effects.

Control Area Analysis

The use of the Kelly Miller control area allows the comparison of the trash in Deanwood with the trash in a similar neighborhood. The amount of trash in the control area was subtracted from the amount of trash in Deanwood. For the first two months, Deanwood had about 2 more pieces of trash per 100 feet than the Kelly Miller area. Then in September, the difference in trash increased to about 10 items/100' and continued at that level until DPW raked up the trash and leaves in mid March in only Deanwood. The clean up by DPW removed about 12 items/100', but had only a short term effect. The difference in trash levels returned to about 10 items/100' until the post-July 4th survey, when the difference in the amount of fireworks remnants and broken automobile glass between the two areas was significant. This is shown in Figure 4-7.

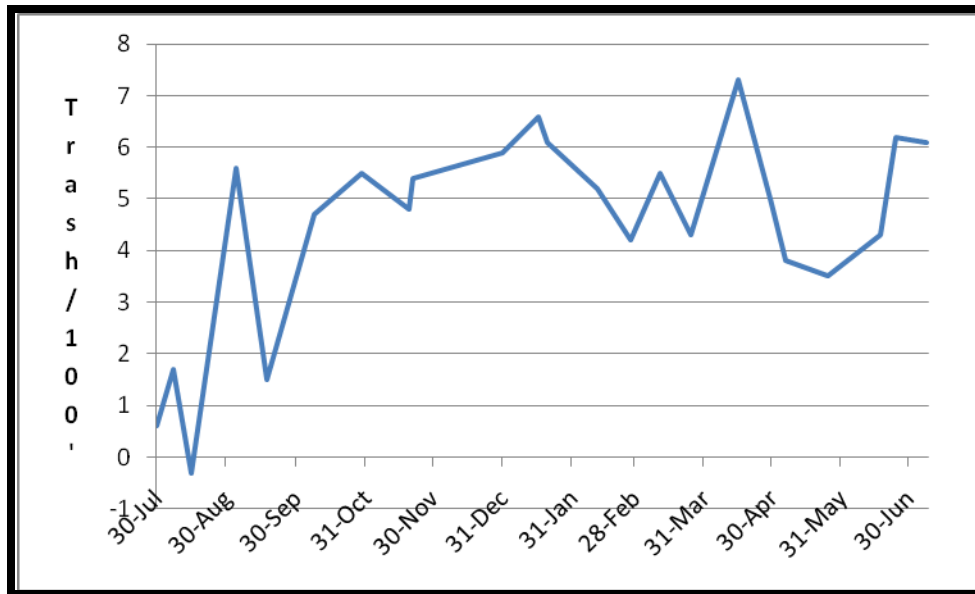
Figure 4-7 Deanwood Trash Levels Minus Kelly Miller Trash Levels



The difference in the amount of food wrappers in the two areas reveals most of the reasons for the divergence of the amount of trash per 100'. In general, as shown in Figure

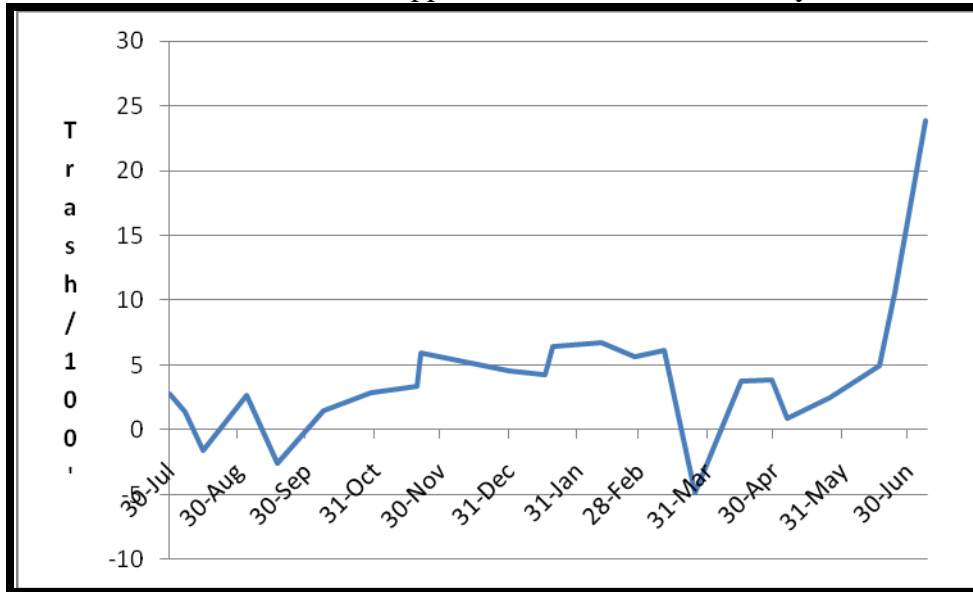
4-8, once school started the amount of food wrappers in the Deanwood area increased to about 5 items/100' more than in the Kelly Miller area even though they both have similar amounts of schools in the surveyed area. This is consistent with the data from the Phase I report windshield survey found in Appendix B of this report. The residents in the Deanwood area blame some of the food wrapper trash on a “candy truck” that comes and parks between the two schools each afternoon to sell candy and ice cream to the children as they leave school and then in the evenings it parks behind the Deanwood Recreation Center and sell to the kids who go there. The result is a significant amount of littering of the food wrappers. The residents of the Kelly Miller area never mentioned such a vendor truck frequenting their neighborhood, so it is believed that there is not one in Kelly Miller. At least half of the increase in trash differences in the two areas may be ascribed to a single source, the candy truck, and to a single age group, children.

Figure 4-8 Deanwood Food Wrapper Levels Minus Kelly Miller Food Wrapper Levels



The difference between the non-food wrapper trash levels in Deanwood and Kelly Miller is shown in Figure 5-9. For the first few months there was no real difference in the amount of trash per 100 feet in the two areas and then it increases to about 5 items per 100 feet and stays there until the post-July 4th survey.

Figure 5-9 Deanwood Non-Food Wrapper Trash Levels Minus Kelly Miller Levels



Special Studies

1. Street Trash Versus Sidewalk Trash

A special set of surveys was conducted to determine the amount of trash in the street, separate from the amount of trash on the sidewalk. During the last survey, the block of 49th Street from Sheriff to Lee was counted twice. The first count was of the normal survey area and there were 317 pieces of trash counted. The second count was of only the street itself, and 65 items were counted. This block was selected as being representative of usual trends in the study area. For this particular block on this particular date, 20 percent of the trash was in the street and subject to being carried to the storm drain or being captured by street sweeping. The results of only one block on one day are not statistically reliable, but do provide some insight into the overall database. The authors were not obligated to perform this work, but felt it would clarify the context of the data for others.


2. Accumulation Rate

Surveys were conducted on November 19 and 21, 2010. Trash levels per 100 feet increased by 30% from Friday to Sunday in both Deanwood and Kelly Miller. It was noted during the data collection for the Anacostia Watershed Trash Reduction Plan that trash counts tend to be higher on weekends than weekdays. Block by block data was examined, but did not provide much insight into the issue. The sociological reasons for the weekend to weekday trash difference are not well understood. It is noted that institutions such as schools and recreation centers may be closed and do not clean up trash on the weekend. There are fewer cars parked along the street during the weekends and this increases the visibility of trash. The 24 hour accumulation rate was calculated to

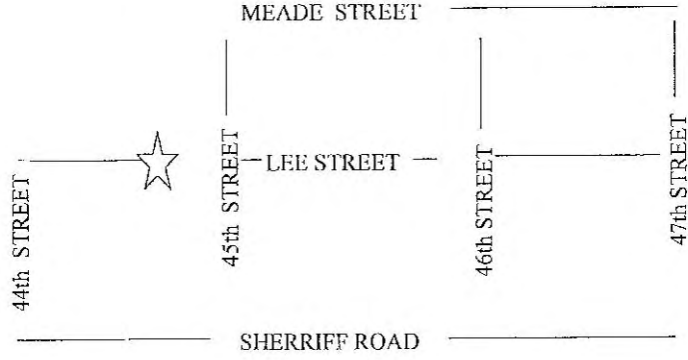
be 3.4 items/100' for Deanwood and 1.8 items/100' for Kelly Miller. This accumulation rate is for the weekend and is tied to the overall rate of increase during this period of the year. It may be less or more during other periods of the year. Two different organizations scheduled cleanups on November 20. The Trash Free Deanwood Cleanup results are not known. The other group, whose flyer is shown in Figure 4-10, had limited success, and one home located on 47th Place between Kane and Lee had raked up and bagged the leaves and trash.

Figure 4-10 Community Clean-up Flyer


Neighborhood Pride Community Clean-up



When: Saturday November 20th
Time: 12pm-3pm
Where: Sign-In/starting point at the corner of 45th & Lee



Lets make our neighborhood shine. Come out to help clean the streets of litter, trash and sweep the leaves. We need everyone's help so feel free to spread the word about this project.



For more information contact Arletta at arlettahardy@yahoo.com or Jackie at (202) 777-4459

Community Service Hours and Letter will be given for those that need them.

Another Trash Free Deanwood Cleanup was scheduled for January 17, 2011, the Martin Luther King, Jr. Day of Service. The flyer is shown in Figure 4-11. The group cleaned up a vacant lot on 48th Street, which was not on the survey route. A survey was conducted

the day before the cleanup. It snowed the day after, and the follow up survey was conducted on January 20, when the snow had melted. The pre and post survey of Deanwood and Kelly Miller gave a trash accumulation rate of 1.5 items/100' per day for Deanwood and 0.8 items/100' per day for Kelly Miller.

Figure 4-11 Deanwood Cleanup Flyer



3. Posted Route Street Sweeping Accumulation Rate

The July 8, 2011 survey was conducted on a Friday and in the Kelly Miller area, 49th Street is swept on Thursday morning. The amount of trash in the street was counted for two blocks of 49th Street. There was approximately 1 item/100' of street (one side only) that had accumulated in the 24 hours since the street was swept. The accumulation rate measured was only valid for the time period in which it was conducted, but it provides some insight into the overall database.

Block By Block Analysis

The trash levels on each block in Deanwood were recorded on a separate data sheet. The total number of items per block was converted to items per 100 feet. The results over the study period were averaged to determine if some blocks were consistently dirtier than others. The results are given in Table 4-2.

Table 4-2 Deanwood Average Trash Levels by Block

Street	Block	Items/100'
49th St-West side	Sheriff-Lee	6.6
	Lee-Meade	8.5
	Meade-Nash	10.3
	Nash-Quarles	3.7
48th St-East side	Minn - Nash	15.1
	Nash-Meade	11.6
	Meade-Lee	9.8
	Lee-Sheriff	10.0
47th Pl-East side	Kane-Lee	6.3
	Lee-Meade	3.3
	Meade-Nash	4.5
46th St - East Side	Meade-Lee	4.6
	Lee-Kane	5.8
	Kane-Sheriff	6.8

The highest levels were found on the block that is on the rear of the Deanwood Recreation Center. During the day this block is used for parking by Metro customers and is filled to capacity with cars. This type of parking is known to generate trash and makes cleanup difficult. Pedestrians coming and going from the Metro Station, some of whom are looking to off-load their trash before continuing their journey, also heavily use this block. In the evenings, the area becomes a popular hang out spot and the candy truck parks and sells candy. Around January, the maintenance crew for the recreation center began to not only pick up trash on the front of the center, but also the rear. At the rear of the property, the crew used a broom and long handled dustbin to collect only the larger items such as cups and bottles, leaving behind all of the small items. The situation was exacerbated by the fact that the sidewalk and curb had been replaced during the summer of 2010 with no cleanup by the government contractor of the sand and dirt in the gutter, which now traps and retains trash even during precipitation events.

The second and third highest levels of trash were found on each side of the Ron Brown Middle School. During the survey period there was no evidence of any outside work by the school maintenance crew until mowing season and even then the trash was mowed over instead of being picked up first. Mowing over trash results in some of it being

removed with the grass clipping and some of it merely being shredded into more pieces and remaining on the ground. Figures 4-12 and 4-13 are examples of the trash levels found along of the exterior of the school. It is common for areas frequented by children to have trash secreted away in hiding places such as old telephone box mounts and in bushes. Multiple pieces of trash stayed trapped inside the green bush on the Ron Brown Middle School property, shown in Figure 4-12, for the duration of the study.

Figure 4-12 Ron Brown Middle School Along 49th Street



Figure 4-13 Ron Brown Middle School Along 48th Street

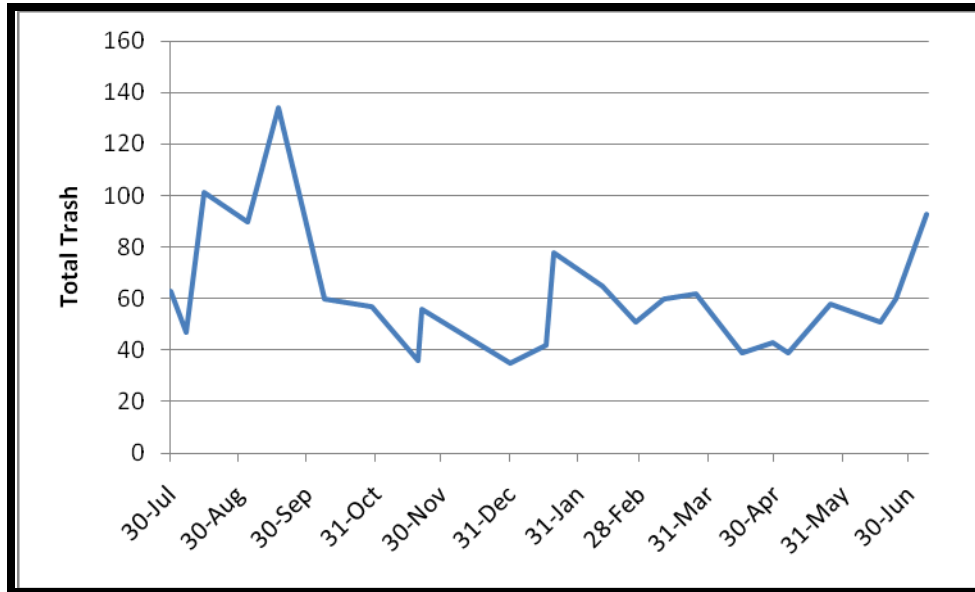


It is noteworthy that the three blocks with the highest level of trash were 100 percent DC government property, with DC government staff responsible for their maintenance. Looking at the average of the block values for each street reveals that 48th Street had trash levels that were more than twice the levels for 47th Place and 46th Street, which had no large government properties.

In Kelly Miller, the worst block averaged 43 items/100', with a maximum value of 65 items/100'. An interesting phenomenon occurred in Kelly Miller when DDOT performed a sidewalk and curb replacement. Prior to the replacement, there were three trash and recycle bins with no lids sitting between a chain link fence and the old sidewalk with a very large amount of trash on the ground around the bins. When the sidewalk was replaced, the crews cleaned up all of the old trash and installed a wider sidewalk with a very narrow tree space of grass. This forced the residents to move the bins inside the chain link fence so trash was contained inside the yard. Figure 4-15 shows the remarkable decrease in trash levels that occurred for the whole block caused by one residence's trash getting cleaned up and staying cleaned up. On the next block, the new sidewalk ran across a previously unmaintained strip of grass in front of a retaining wall. The high grass had been trapping trash, allowing it to accumulate to high levels. Once the high grass was replaced by smooth sidewalk, the trash accumulation rate decreased dramatically. The cleaning power of sidewalk installation was observed one other time in Kelly Miller

when DDOT repaved the Brooks to Blaine block of 49th Street and raked the public space afterwards.

Figure 4-14 Effects of DDOT Sidewalk Replacement on Brooks Street



During the survey period there were several occasions when the Deanwood trash would have a sudden spike in the amount of an unusual item. Two of those events involved a large number of yellow #2 pencils found around the Ron Brown Middle School. It was surmised that it must have been a day for taking standardized tests. Another event occurred in which numerous unused condoms, along with a pregnancy and HIV prevention flyer and a white plastic bag from the DC Department of Health were found scattered for blocks in the vicinity of the Ron Brown Middle School. It was not uncommon to find flyers or slips of paper given out at school torn into pieces and scattered around the neighborhood.

CHAPTER FIVE CONCLUSIONS AND RECOMMENDATIONS

Trash levels in both the Deanwood and Kelly Miller area behaved in a similar fashion with a peak at the beginning of the school year, a decline in the fall, and then increasing to a reasonably constant level that persisted from December to July. Trash levels began at about 13-15 items/100' and ended at about 35-40 items/100'. A total of 84,563 pieces of trash were counted.

The study demonstrated that the use of a control area works well and that the survey methods are consistent.

The largest fraction of the trash and the dominant variable was food wrappers. At the beginning of the study, the amount of food wrappers in each area was similar. Once school opened, the amount of food wrappers increased in both areas, but was significantly more in Deanwood because of the candy truck. Near the end of the study period, the amount of food wrappers decreased after school was let out for the summer. Food wrappers composed 29% of the total trash in Deanwood and 21% in Kelly Miller.

Non-food wrapper trash levels in both areas remained comparable except for the last two surveys, when broken glass from automobiles and fireworks remnants elevated the data for Deanwood. Non-food wrapper paper items accounted for about 20% of the total trash in Deanwood.

The effects of rainfall washing away trash were highly irregular and confounded by other variables. Rainfall related reduction rates of 10% to 20% were calculated when trash counts were decreasing and a negative reduction rate was calculated when trash levels were increasing. Rain not only washes away trash but also deteriorates paper items. Snow obscures trash items and will deteriorate paper items. Snow inhibits residents from picking up trash on their lawns.

The DC government owned four of the fourteen blocks surveyed in Deanwood. Three of them ranked the highest in items of trash per one hundred feet.

As was found in the Phase I studies, attempting to count trash during leaf fall is fraught with difficulties. During the Phase I study, the surveys were discontinued with the approval of DDOE until the situation improved. In the Deanwood study, the grantor and contracting agencies wished to proceed with the work through leaf fall.

A number of small, one-time studies were conducted to develop factoids. They do not have any statistical significance but are worth noting for future studies and reference.

1. Of the trash counted on a block, about 20% will be in the street and gutter and 80% will be up on the sidewalk and grass.
2. The trash accumulation rate between Friday and Sunday is about 2-3.5 items/100'. The trash accumulation rate for one lane of a street that has been swept is about one piece per hundred feet in 24 hours.
3. A broken bottle produces 10-20 pieces of glass.
4. In mid-March when DPW did the spring cleanup only in the Deanwood area, it removed about 12 pieces of trash per 100' or about 25%. It is not possible to estimate the effects of the Fall DPW leaf removal from this data set due to rainfall events and other events occurring at the same time. While the data suggest that the DPW cleanups are only minimally effective, this is most likely an artifact of the purpose of the survey being different than the purpose of the cleanups. Aesthetically and visually, the cleanups undeniably improve the appearance of the neighborhood streets and homes immensely. Some areas that never get any maintenance such as vacant buildings and lots get all of the large trash items removed, as well as limbs and leaves. The survey counts small items such as metal bottle caps and broken glass which are not as visible as a cup or can or Styrofoam take out container and these very numerous small items are resistant to removal by the DPW methods.

Recommendations

The monitoring team was in the area twice a month for a year and had a number of interactions with the citizens living there. The vast majority spent a significant amount of time cleaning up their street and wanted less trash in the neighborhood. The gentleman on the cover of the report is only one of many that were observed and talked with.

- A. The Deanwood Recreation/Community Center/Library is very heavily utilized by the residents and caters to every age group. It seems to be one of the strongest focal points in the community outside the churches. Any community outreach program should focus a large effort there.
- B. There should be some central point of contact in the community and the survey team should have a brochure or flyer to give to interested citizens so they can contact the community representative and become involved.
- C. DDOE should define exactly what is encompassed in outreach. The situation with the government having the dirtiest blocks in Deanwood and there being people at those institutions who are paid by the government to clean up the exterior begs the question of outreach versus enforcement and how one can convince the residents to make a larger effort when the government is not. The same consideration can be given to vacant lots which often have very high levels of trash and low levels of maintenance but can be the target of Clean It Or Lien It. This could also be thought about concerning advocacy to get a community to develop a petition for street sweeping.

D. A solution to the “candy truck” generated litter must be found in order to be effective in Deanwood.

E. One day, as the survey team was going down the street counting trash, a grown woman approached from the rear and followed a short distance to determine what was being counted. She then crossed to the other side of the street and picked up about three or four items of trash from the gutter and carried them to the corner where she dropped them and kicked them into the storm drain inlet. The citizens need to be informed that the “Don’t Dump” stickers on the inlet also mean don’t use the storm drain as a trash can. This is not an uncommon practice and can be seen in every neighborhood in the District.

F. It is unclear exactly how the survey team was viewed by the predominantly African American community. In Deanwood, most residents were interested that there was going to be an effort to clean up their community, but as months and months passed and nothing materialized there seemed to be a skepticism. In the Kelly Miller community there was no message to be delivered to the citizens and they seemed to be surprised that the trash would be counted but not picked up. Nonetheless, most of the citizens that were talked to began to increase their trash reduction efforts.

G. There was a crew who were seen cleaning up Sheriff Road and short distances down the side streets for the first few months and then were not seen anymore. The effect of their cleaning up trash was never measured, but it is believed they had not only an effect of physically cleaning up trash but also were a visible reminder to the community not to litter.

H. The DPW fall and spring cleanups are remarkably effective tools for improving the visual appearance of a community. They should be incorporated into the planning of any neighborhood improvement program.

I. While not directly measured by this study, un-posted street sweeping was observed in both Deanwood and the Kelly Miller area. The effectiveness of this sweeping is greatly diminished by the high number of parked cars in these neighborhoods. Several residents remarked that they would have been happy to move their cars had they known the sweepers were coming. Notifying residents of days and times when sweepers are likely to come so they can choose to move their cars would likely increase the effectiveness of the sweeping program.

J. To the extent that trash cans are available, a lot of people will use them. Several residents mentioned the need for trash cans around the school. Several residents had hung plastic trash bags from their fences or put out their own trash cans for people to use. These unofficial trash cans were not always well maintained or adequately covered to prevent trash from escaping, but were always heavily used.

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Leaf Collection, DC Department of Public Works, <http://dpw.dc.gov/DC/DPW/Services+on+Your+Block/Leaf+Collection/Leaf+Collection+--+Holiday+Tree+Collection?nav=1&vgnextrefresh=1>

APPENDIX A

TRASH SURVEY FORM

Station:		Date:
Plastic bags	Paper bags	Liquor bottles
Beer bottles	Beer cans	
Soda bottles	Soda cans	
Water bottles	Sports drinks	
Juice cans	Juice bottles	Juice packs
Styrofoam cups	Plastic cups	Paper cups
Food Wrappers		
Take-out food packaging		
Smoking related stuff, Cigarettes		
Napkins, Paper towels, Tissues		
Lids, straws		
Beverage Rings, Cartons	Toiletries	Dugs
CDs, Cassettes	Toys, balls	Misc. recreation
Newspaper, Magazine, Book	Advertising, Signs, Cards	
Misc. Paper		
Misc. Plastic		
Misc. Metal	Organic waste	Home food packaging
Styrofoam plates	Foam packaging	
Styrofoam chunks, large	Styrofoam chunks, small	
Other misc. cartons	Other metal, foil packets	
Other fabric	Clothing	
Auto Products Containers	Broken Glass	
Vehicle parts, Small <1 sq ft	Vehicle parts, Large >1 sq ft	Tires
Construction Debris, Small	Construction Debris, Large	
Appliances, bicycles, carts	Carpet	
Misc. Large Debris	Misc Plastic Debris	

Definitions and Weight

Plastic Bags- Plastic grocery bags, shopping bags, garbage bags, newspaper sleeves, and the shreds or parts of torn bags. Wt = 0.1 – 0.12 ounce

Liquor Bottles- Bottles that originally held an alcoholic beverage other than beer, such as wine, vodka, whiskey, rum, or bottled mixed drinks. Includes all sizes and types of bottles, from plastic single shot mini bottles to large multiple-serving size glass bottles. Broken bottles are included if all pieces are close enough to each other to easily identify the original bottle shape. Wt = 9.3 ounces

Beer Bottles- Glass bottles that originally held beer or a similar malt beverage. In the absence of a distinguishing label, bottle shape and color are used to deduce the original contents. Broken bottles are included if all pieces are close enough to each other to easily identify the original bottle shape. Wt = 7 ounces

Beer Cans- Metal cans of various sizes, whether flattened or not, that appear to originally have contained beer or a similar malt beverage. This also includes beverages that are beer based, but have additives such as caffeine and may be marketed as a form of alcoholic energy drink. In the absence of a clearly distinguishable label, a best guess of original contents is made based on size, shape, and any remaining label color and patterns; unlabeled cans may be confused with soft drink or juice cans. Wt = 0.5 ounces

Soft Drink Bottles- Bottles of any size, usually plastic and rarely glass, that originally contained a non-alcoholic, carbonated beverage. In the absence of a contradicting label or distinguishing bottle cap, any bottle shaped like a standard soft drink bottle falls into this category, even though a small number of waters and juices are distributed in similar bottles. All bottles, whether crushed or torn, are included if they can be identified. Wt = 1.0 ounces

Soft Drink Cans- Metal cans, whether flattened or not, that originally contained a non-alcoholic, carbonated beverage. Also includes similarly marketed and distributed non-carbonated tea i.e., Arizona Tea. In the absence of a clearly distinguishable label, a best guess of original contents is made based on size, shape, and any remaining label color and patterns; unlabeled cans may be confused with beer or juice cans. Wt = 0.45 ounces

Water, Plastic- Plastic bottles originally sold containing drinking water. Does not include gallon jugs or any larger bottles intended for use with a dispenser. Does not include re-usable water bottles. Wt = 0.65 ounces

Sports Drinks, Plastic- Plastic bottles that originally held a non-alcoholic, non-carbonated beverage commonly marketed for improved hydration during sports, e.g., Gatorade, Powerade. Also includes “enhanced water,” water that has been heavily augmented with flavor, color, or sugars e.g., Vitamin Water, Propel Fitness Water. These beverages come in a fairly unique style of bottle that makes them easy to distinguish. Rarely, juice may be sold in a similar style bottle and though those juice bottles are

generally smaller, they may be confused with a sports drink bottle when unlabeled. Wt = 1.55 ounces

Juice Cans- Metal cans that originally contained a non-alcoholic, non-carbonated beverage marketed as a juice drink, whether or not the actual beverage contained any real fruit juice. In the absence of a clearly distinguishable label, a best guess of original contents is made based on size, shape, and any remaining label color and patterns; unlabeled cans may be confused with soft drink or beer cans. Wt = 0.5 ounces

Juice Bottles- Glass or plastic bottles that originally contained a non-alcoholic, non-carbonated beverage marketed as a juice drink, whether or not the actual beverage contained any real fruit juice. Juice bottles come in many shapes and sizes and are most easily identified by their label. Broken bottles are included if all pieces are close enough to each other to easily identify the original bottle shape. Wt = 1.3 ounces

Juice Packs- Juice boxes, juice pouches such as Capri Sun, and individual serving milk carton drinks, including juice, milk and chocolate milk.

Styrofoam Cups- Foam beverage cups or large pieces of those cups. Pieces can be identified by the distinctive rim and curved shape. Includes all types of foam beverage cups, from small 8 oz generic white coffee cups to extra large size cups commonly used with lids and straws to sell fountain soda and iced beverages. If several pieces of the same cup appear in one area, they are counted as a single cup. Styrofoam is a word that is used for objects that are more correctly made from expanded polystyrene foam (EPF). Wt = 0.2 ounces

Plastic Cups- Disposable cups made of plastic or large pieces of those cups. If several pieces of the same cup appear in one area, they are counted as a single cup. Wt = 0.4 ounces

Paper Cups- Disposable cups made of paper, most often heavily treated or coated paper. If several pieces of the same cup appear in one area, they are counted as a single cup. Wt = 0.3 ounces

Food Wrappers- This includes many kinds of wrappers and bags that food comes packaged in, such as potato chip bags, candy wrappers, packaging from individually wrapped pastries or sandwiches, etc. Wt = 0.1 ounces

Take Out Food Packaging- Anything used in the packaging of prepared foods, including Styrofoam, plastic, or cardboard hinged-lid containers, disposable lidded containers, and French fry cups. Wt = 0.25 ounces for EPF clamshells

Smoking related stuff, Cigarettes - Smoking related products and their packaging. Does not include cigarette butts or other items of less than 1 inch. Wt = 0.2 ounces

Napkins, Paper Towels, Tissues- Disposable paper-based products intended for cleaning or drying. Wt = 0.15 ounces

Beverage Carriers, Rings, Cartons- Plastic ring-type beverage carriers, cardboard carriers or boxes. Wt = 1.5 ounces

Toiletries- External personal care products and their packaging, including soap, lotions, antibacterial gel, cosmetics, dental floss, cotton swabs, and diapers. Wt = 2.0 ounces

Drugs- Prescription and over-the-counter therapeutic drug packaging, usually plastic bottles, as well as illegal drug packaging and paraphernalia, including tiny baggies and hypodermic syringes. Also includes condoms. Wt = 1.0 ounces

Games, Cassettes, CDs- Includes audio or computer CDs, audio or video cassettes and their tape, and vinyl records. Wt = 0.55 ounces

Toys, Balls- Includes all types and sizes of recreational balls made from any material and any toy or part of a toy larger than 1 inch. A piece of plastic may carry a brand name, picture, or pattern that make it clear it came from a toy or the shape and color of the piece may be identifiable as a toy part. Some toy parts are not recognizable and may have been categorized as miscellaneous plastic. Wt = 14.0 ounces (soccer ball)

Misc. Recreation- Includes things that are not strictly toys, but fit in no other categories, such as backpacks, school supplies, pencils, wallets, credit and identification cards, fireworks remnants, etc. Wt = 4.0 ounces

Newspapers, Magazine, Books- Any paper publication. In the case of a book torn in half, the two parts are counted as a single item. In the case of a newspaper blown apart, each sheet is counted individually. In the rare case that a newspaper is still all folded together, it is counted as a single item. Wt = 0.6 ounces per double page

Advertising, Signs, Cards- Includes corrugated plastic advertising signs, election posters, paper flyers, postcard advertisements, and lost street signs. Wt = 2.0 ounces

Misc. Paper- All paper and pieces of paper or paper based items that are not easily identifiable or that do not fit in other categories. Includes receipts, discarded schoolwork, heavily degraded paper food wrappers, and shredded flyers.

Misc. Plastic- All plastic that does not fit in other categories or is unidentifiable. Include broken personal electronics, charging cords, rubber bands, latex gloves.

Misc. Metal- All metal that does not fit in other categories or is unidentifiable. Includes jewelry, batteries, metal eating utensils, and coat hangers.

Organic- All organic trash, including chicken bones, banana and orange peels, and dropped food.

Home Food Packaging- Packaging from foods traditionally eaten in the home or that would require a special tool to open or prepare. Includes cans that require a can opener, packets of powdered mashed potato, ramen noodle packets, etc. Wt = 2.0 ounces

Styrofoam plates- Expanded polystyrene foam plates or parts of plates. In the case of multiple pieces of plate that clearly came from the same plate, the pieces are counted as a single plate. If the pieces may have come from different plates, a rough guess is made of how many plates are represented. Wt = 0.25 ounces

Styrofoam, foam packaging- Foam packing material such as foam packing peanuts or foam wrapping sheets. Wt = 0.65 ounces

Styrofoam Chunks- Miscellaneous and unidentifiable pieces of foam. If the piece is less than 12 square inches, it is considered Small. Large is 12 square inches or more. Small Wt = 0.6 ounces. Large Wt = 2.0 ounces

Other Misc. Cartons- Bottle, cartons, and containers that do not fit in any other category. Includes cardboard boxes and large juice, milk, or water jugs. Wt = 2.7 ounces

Other Metal, Foil Packets- Metal food containers not covered by other categories and aluminum foil, some of which may be from cigarette packs. Wt = 0.5 ounces

Other Fabric- Fabric that cannot be identified or did not come from clothes or as part of a car or appliance. Includes blankets, towels, and cloth used to wrap items for transport. Wt = 8 ounces

Clothing- In addition to the usual clothes such as shirts, pants, and socks, clothing also includes hats, shoes, purses, and umbrellas. Wt = 10 ounces

Auto Products Containers- Bottles, boxes, cans, tubes, and other containers that held products used in the care and maintenance of an automobile. Includes oil and other engine fluid bottles, washer fluid bottles, and car wax or polish containers. Includes air fresheners. Wt = 3.0 ounces

Broken Glass- All pieces of broken glass larger than one inch or discrete piles of many tiny pieces that together are more than one inch, such as safety glass. Glass is most commonly from bottles, but may come from vehicle windows, mirrors, or picture frame glass. Broken bottles are not included if all pieces are close enough to each other to easily identify the original bottle shape.

Vehicle Debris- Anything that was once part of an automobile. Includes various metal auto parts, pieces of the car body, seats, hubcaps, mirrors, hood ornaments, and license plates. Items less than 1 square foot were marked as Small; items of 1 square foot or larger were counted as Large. A tire with no wheel inside of it weighs about 24 pounds. The average large car part that is not a tire weighs perhaps 2 pounds. A small car part Wt = 0.25 ounces, Large car part Wt = 5 pounds

Construction Material- Items that were used in the construction or deconstruction of something. Includes building material such as lumber, vinyl tile, siding, or roofing material. Also includes tools such as hammers, shovels, and hoses. Small Wt = 0.5 pounds Large Wt = 4.0pounds

Appliances- Includes bicycles, shopping carts, strollers, scooters, lawnmowers, furniture, and appliances such as washing machines, refrigerators, radiators, etc. Wt = 10 pounds

Carpet- Includes carpet and carpet pad. Wt = 20 pounds

Miscellaneous Large Debris- Large debris that does not fit in any other category or is not identifiable. Includes discarded garbage cans and recycling bins. Wt = 2 pounds

Miscellaneous Plastic- All large plastic debris that does not fit in any other category or is not identifiable. Wt = 1 pound

APPENDIX B

Selection of a Control Area for Deanwood

The data from the windshield survey collected for the Anacostia Watershed Trash Reduction Plan was examined to select a suitable control area for the Deanwood study. A set of desirable characteristics was developed to help select candidate areas for detailed examination.

Selection Characteristics and Criteria

1. Should be primarily single family residential.
2. Should include at least one school and preferably two.
3. Should have a recreation center
3. Should have trash levels per block that are similar to Deanwood, i.e. about 30 pieces per block.
4. Should exhibit the same quarterly pattern of the first two surveys being higher than the last two surveys.
5. Areal extent should be similar, i.e. about 40-50 blocks.
6. Should not include major commuter streets or large amounts of commercial land uses.
7. Should not be subject to extra trash reduction measures such as the street sweeping.
8. Trash level variation should be similar to Deanwood, which is less than 20%.

The windshield database for the candidate areas was excised of the data that was not in the specific control area and the quarterly average calculated and then the data for the blocks contained in the area were graphed.

The following areas were examined:

1. Watts Branch - Kelly Miller Middle School area
2. Ft Chaplin - Davis Elementary School area
3. Upper Pope Branch
4. Naylor Road - Anacostia High School
5. Marshall Heights
6. Langdon Park Area

Graphs of Average Trash Per Quarter

The six selected areas were examined and are shown in the following figures:

Figure 1. Deanwood

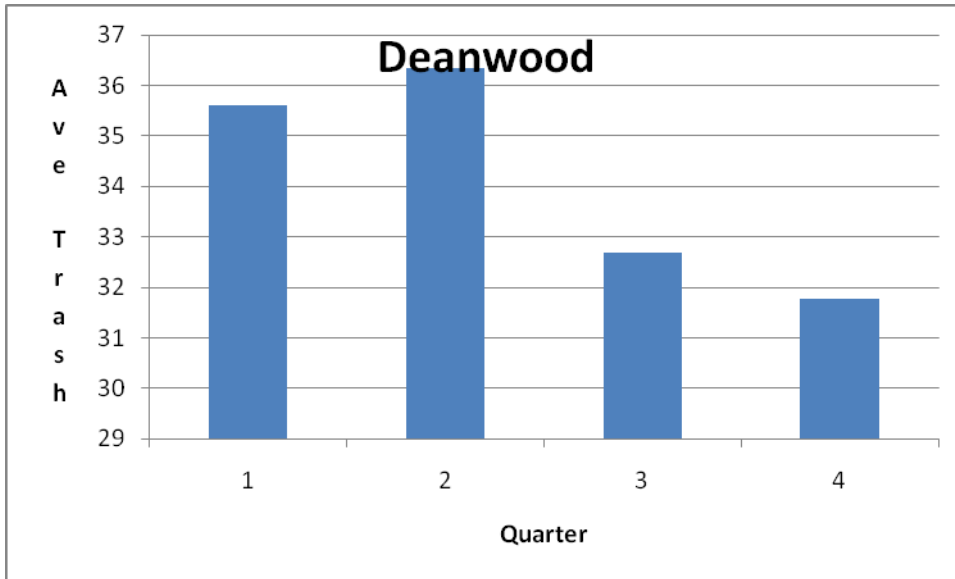


Figure 2. Watts Branch – Kelly Miller Middle School Area

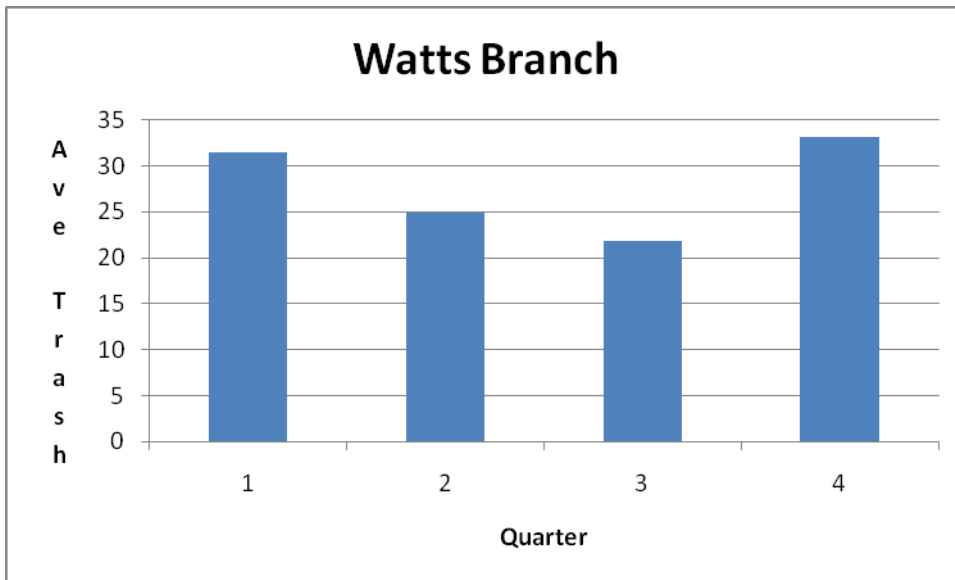


Figure 3 Fort Chaplin

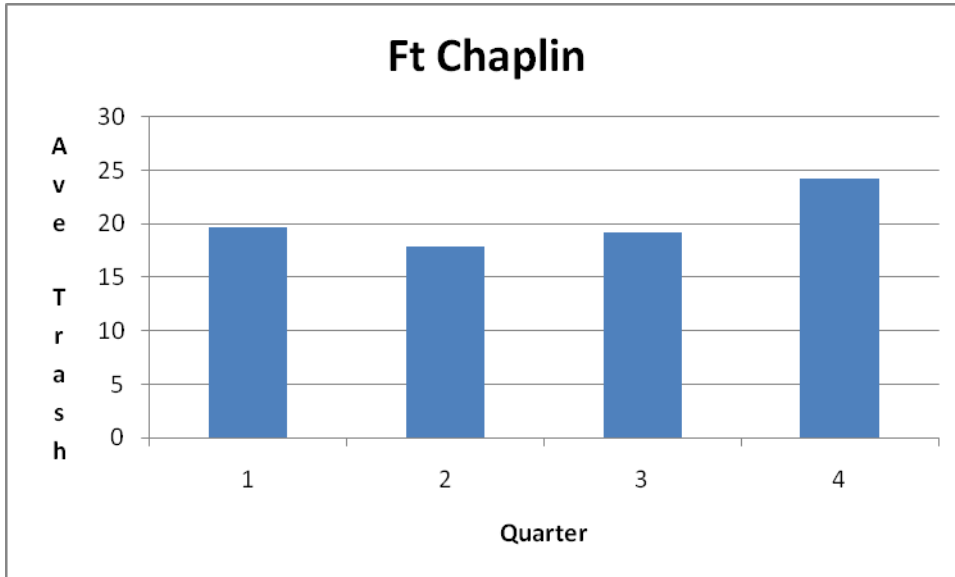


Figure 4. Upper Pope Branch

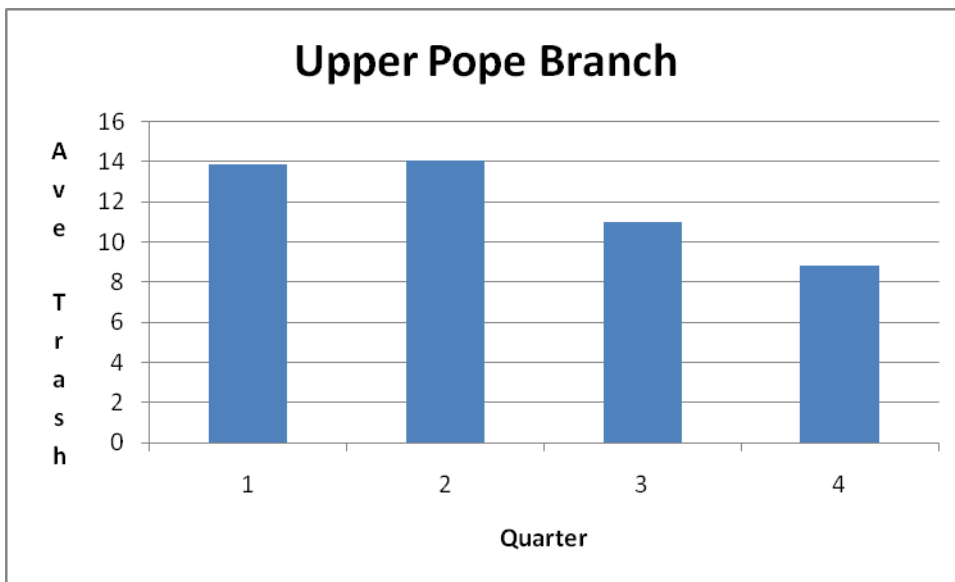


Figure 5. Naylor Avenue Area

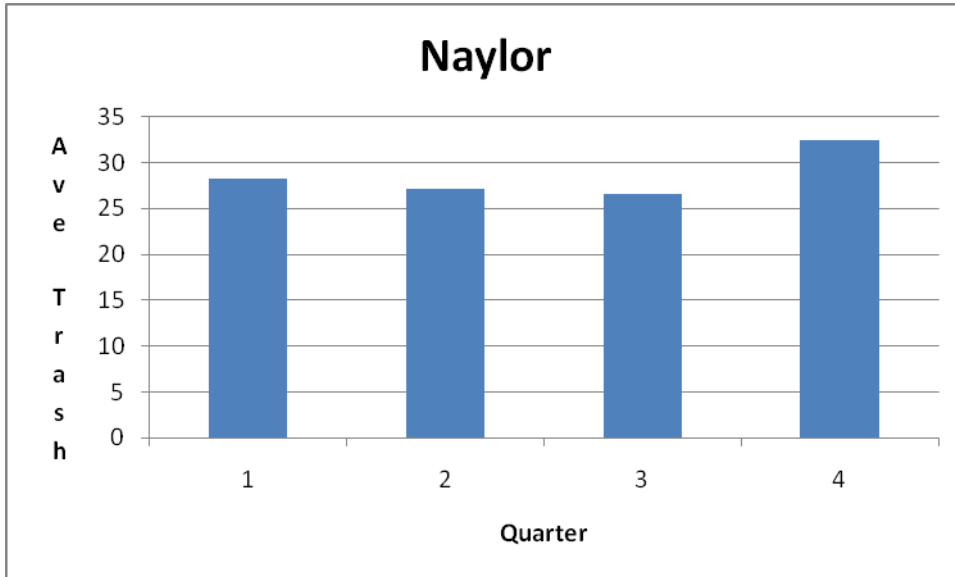


Figure 6. Marshall Heights

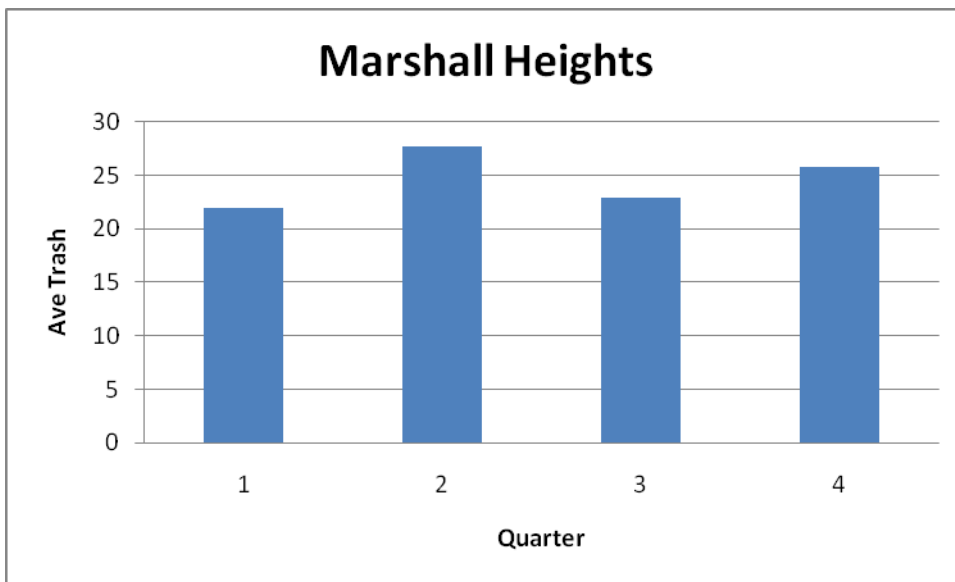
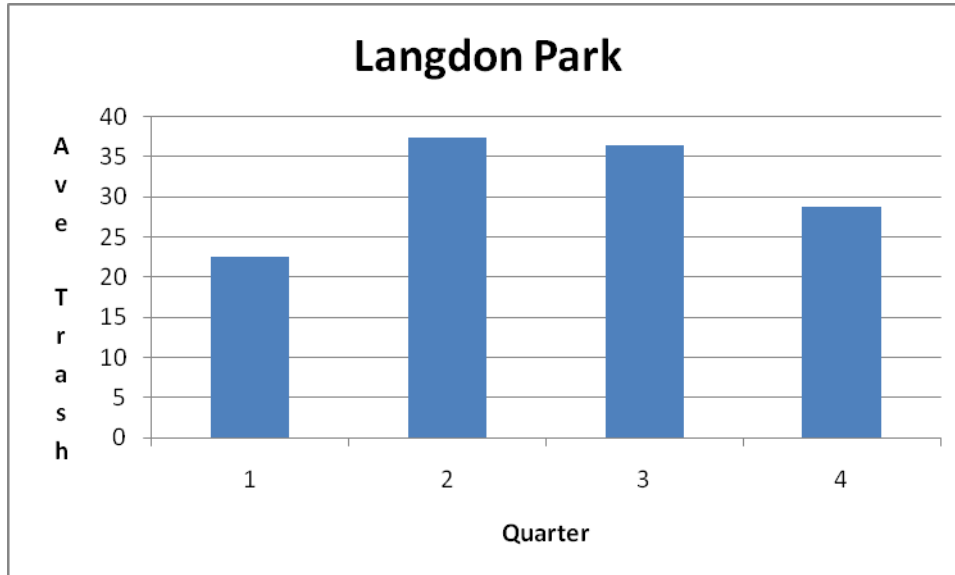


Figure 7. Langdon Park



Issues with areas examined in detail.

1. Watts Branch - Kelly Miller MS
Pattern is different, but not greatly different
Variation is greater than 20%
2. Fort Chaplin
Trash levels are slightly lower
Pattern is different but uniform
Variation is greater than 20%
3. Upper Pope Branch
Land use is different - No schools
Low levels of trash
Variation is greater than 20%
4. Naylor Road/ Anacostia HS
Housing stock has multifamily residential as well as row homes mixed in with separated single family residential
Minnesota Ave is a major commuter route
Pattern is different
5. Marshall Heights
Random pattern, unlike Deanwood
Trash levels are slightly low
Some multi-family residential land use
6. Langdon Park
Pattern is different

Land use is different -Extreme amounts of parkland
Variation is greater than 20%

Selection

Based upon the analysis, the acceptable areas are:

Watts Branch/Kelly Miller MS

Ft Chaplain

Marshall Heights

In reviewing the “patterns” of all of the areas it appears that they are caused by events and situations which are beyond our ability to explain and that they are not necessarily repeatable year after year, unless one does adequate research to establish the causative factors.

The Watts Branch - Kelly Miller Middle School area is selected because of the similarity of land uses. It contains two schools, a recreation facility and single family homes.



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YOUR LITTER HITS CLOSE TO HOME.

Piece by piece, litter adds up, and makes the places we go to every day unsafe and unhealthy.

**Take control.
Take care of your trash.**
www.trashfreepotomac.org



CLEAN LAND.
SAFE WATER.
HEALTHY LIVES.

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Why should we care about trash and litter?

- Trash and litter attracts rats, mosquitos, and other nuisance animals that carry diseases
- Eventually litter finds its way into our waterways-our main source of drinking water.
- Trash surrounding your home and community reduces its value and damages area business and recreation.
- A street with improperly discarded trash will reduce the value on homes, making it difficult to sell.
- River and street cleanup is paid for by the city. It costs tax dollars to manage the storm drains and capture the trash.

Piece by piece, litter adds up, and makes the places we go to every day unsafe and unhealthy.



**Join the Anacostia Watershed Society
on Nash Run
to help clean the Trash Trap**

Last Saturday of every month

**Call Laura Chamberlin at 202-973-8203
for more information.**



**To find out more about the
Trash Free Deanwood Campaign
and how you can become
part of the solution,**

**visit www.trashfreepotomac.org
or call 202-973-8203**



**CLEAN LAND.
SAFE WATER.
HEALTHY LIVES.**

**YOUR LITTER HITS
CLOSE TO HOME.**

Trash Free Deanwood



**TAKE CONTROL
TAKE CARE OF YOUR TRASH**



Building Traction Against Trash in Deanwood

We need your help! Taking responsibility for your trash enables you and the ones you love to enjoy clean land, safe water and healthy lives. You can help create a trash free community by taking care of your trash and encouraging your friends, family and community to do the same. The Alice Ferguson Foundation is working throughout the Potomac watershed to spread the message about how litter impacts the quality of our water and our life.

Traveling Trash

Trash is mobile. What is discarded improperly miles and miles away from the river eventually finds its way into our waterways...and into our drinking water.



How does the trash get to the River?

Piece of **trash** is tossed to the ground.



Rain washes it down the storm sewer.



Storm sewer dumps into the stream.



The **trash** and the water flow down to the Anacostia river.



How can I get involved?

- Choose not to litter
- Volunteer at litter cleanups
- Always carry a trash bag in your vehicle
- Tell a friend why it's important
- Pick up after your dog and put pet waste in trash receptacles
- Call 311 to report illegal dumping or other improperly disposed trash
- Ask about clean-ups at the Nash Run trash trap
- Securely attach the lid on your curbside garbage can



Project Budget

	Awarded Amount	Amount Spent	Left Unspent	Notes
PERSONNEL				
Organization Employees	\$55,364	\$45,264	\$10,100	Includes Local outreach Coordinator because all were hired as staff
Employee Benefits	12511	\$10,411	\$2,100	23% of salary
Contract Project Staff:				
Opinion Works	\$49,000	\$44,000	\$5,000	Did not conduct follow-up survey
Noral Group	\$15,000	\$15,000	\$0	
Private Contractor- Jim Collier	\$12,000	\$12,000	\$0	
Ruder Finn	\$4,000	\$4,000	\$0	
Rachel Cain	\$2,050	\$2,050	\$0	
Groundwork Anacostia	\$7,000	\$7,000	\$0	
Greater Washington Interfaith Power and Light	\$475	\$475	\$0	
Total Personnel Costs	\$157,400	\$140,200	\$17,200	
OPERATING				
Postage	\$300	\$300	\$0	
Copy/Printing	\$1,500	\$1,500	\$0	
Materials/Supplies	\$2,400	\$2,400	\$0	
Evaluation	\$600	\$600	\$0	
Total Operating Costs	\$4,800	\$4800	\$0	
TRAVEL				
Mileage (Rate @ ¢ 44.5/mile)	\$700	\$700	\$0	
Fares	\$400	\$400	\$0	
Total Travel Costs	\$1,100	\$1,100	\$0	
TOTAL OF ALL CATEGORIES	\$163,300	\$146,100	\$17,200	



Getting to the Source—Understanding DC Citizens/Business Community Attitudes Towards Litter and Responses to Anti-litter Messaging and Strategies

Output and Outcome Table

Activity	Output	Outcome
<p>600 Survey interviews by telephone District-wide (75 per ward) Conduct an additional 100 interviews within a targeted watershed</p> <p>Partnership Meeting between DDOE, AFF, and OpinionWorks</p> <p>Report on completed survey</p>	<p>Survey Completed and executed with 700 interviews, 100 within target watershed.</p> <p>Meeting held between DDOE, AFF, and Opinionworks to discuss results</p> <p>Report on survey completed and submitted to DDOE</p>	<p>Understanding of District residents’ attitudes and behaviors toward litter and littering.</p>
<p>50 in-depth interviews by telephone among a cross-section of businesspeople and community leaders,</p> <p>15-20 have to be in targeted watershed or immediate surrounding area but within DC</p> <p>Partnership Meeting between DDOE, AFF, and OpinionWorks</p> <p>Report on completed survey</p>	<p>Interviews are completed and report has been submitted to DDOE.</p>	<p>Understanding of District’s business owners and managers attitudes toward litter, littering, and methods to address the problem.</p>
<p>Utilize the data from Service # 1-3 and secondary sources to create messaging and outreach options that DDOE and other District agencies can pursue.</p> <p>Develop an over-arching branding, tag line, logo, and image for DDOE that will be used in the target watershed and District wide.</p> <p>Develop options for an outreach campaign that can be used as a component of a trash TMDL implementation plan.</p> <p>Develop a comprehensive 5-year, communications strategy that will include community-based outreach and non-traditional marketing.</p>	<p>Final Materials submitted, along with new images.</p> <p>DC outreach campaign tactics and materials are currently being tested in Deanwood community.</p> <p>5-year Communications Plan has been submitted.</p> <p>Final Research Report has been submitted.</p>	<p>Anti-litter messaging and deployment strategies that will reduce littering in the District</p> <p>Non-engineering strategies that will reduce trash loads in the Anacostia River watershed</p> <p>Research and implementation strategies that will contribute to the Implementation Plan for the Anacostia Trash TMDL and renewal of Stormwater MD4 Permit</p>
<p>Conduct focus groups</p>	<p>Final DC Focus group was held Monday, November 29th to test final campaign designs. DDOE attended.</p>	<p>Understanding of District residents’ attitudes and behaviors toward litter and littering, as well as their response to messages and strategies.</p>
<p>1. Conduct pre-outreach monitoring in</p>	<p>1. Collier VTS Team has completed</p>	<p>Behavior changes showing a</p>

<p>targeted area using VTS monitoring in a defined area of the Nash Run watershed. Conduct Visible Trash Surveys following outreach pilot activities. Correlate the trash data before and after the Anti-littering Campaign to see if a reduction has occurred.</p> <p>2. Pilot limited outreach campaign in a defined area within Nash Run watershed commercial area utilizing the strategies developed for the Anti-Littering Plan from Service #4 with local coordinators conducting the outreach.</p> <p>3. Develop and conduct a telephone opinion survey within the watershed to measure possible attitude changes from the targeted outreach</p> <p>4. Report on the effectiveness of the targeted pilot study</p>	<p>monitoring. Final Report has been submitted.</p> <p>2. Pilot Campaign “Trash Free Deanwood” is currently underway, led by AFF Local Outreach Coordinator.</p> <p>3. 100 households were polled within target watershed during District-wide survey as pilot baseline. A second survey will be conducted after outreach is over, potentially in a new grant cycle.</p> <p>4. A report of lessons learned and recommendations will be completed after the completion of outreach in September.</p>	<p>trash reduction, as a result of the community outreach strategies</p>
<p>Deanwood Expanded Activities</p> <p>1. Conduct outreach with community organizations in order to conduct presentations and display of materials. Possible organizations include: Deanwood Citizens Association, Deanwood Heights Main Streets, and Deanwood Recreation Center.</p> <p>3. Maintain and expand relationship with area churches in order to conduct presentations and display of materials. Possible churches for partnership include: Good Success, First Baptist Church, Pilgrim Rest Baptist Church, and New Morning Star Baptist Church.</p> <p>5. Expand relationship with schools to conduct presentations and display of materials</p> <p>6. Train Groundwork’s Green Teams to conduct trash timeline and other trash education lessons and outreach.</p> <p>7. Green Teams will conduct outreach.</p>	<p>30 people participated in Martin Luther King Jr. Day of Service and cleanup activities</p> <p>40 posters displayed with businesses through Deanwood Heights MainStreets.</p> <p>14 posters, 90 brochures distributed to 9 businesses within Deanwood and Greater Deanwood. Included a conversation with each business owner or manager</p> <p>3 2’x5’ banner displayed at Recreation Center</p> <p>2 2’x5’ banner displayed at rotating activities</p> <p>10 posters displayed at recreation center</p> <p>Provide 10 trash cans for football field, to improve containment of trash. Posters to be displayed on the trash cans.</p> <p>Discussed presentations with assistant librarian, but was never able to gain permission from the Head Librarian.</p>	<p>Understanding of Deanwood residents’ attitudes and behaviors toward litter and littering.</p> <p>Increased awareness of Deanwood residents to littering and trashing of their neighborhood resulting in a behavior change.</p>

	<p>10 brochures and 2 posters to the Fishing School. Discussed opportunities for partnership with after school programming.</p> <p>100 brochures left in various locations at the recreation center and library and distributed to interested citizens</p> <p>Tabling presentation at Deanwood Community Day on September 17th. Hung banners around football field, trash cans available, 40 brochures and 20 posters distributed, approximately 100 people reached.</p> <p>5 presentations given to youth or senior groups at the rec center, reaching 100 youths and adults</p> <p>Approximately 400 decals distributed at different activities and locations including recreation center, churches, and tabling events.</p> <p>Pilgrim Rest Baptist Church, First Baptist Church, Madedonian Church, Divine Love Baptist, Divine Love Baptist, and Randall Memorial agree display posters and brochures.</p> <p>8 posters, 40 brochures distributed to churches with Deanwood and Greater Deanwood</p> <p>6 posters with Ron Brown Middle School</p> <p>6 posters with Burrville Elementary School</p> <p>6 posters with Houston Elementary School</p> <p>8 high school students, members of Groundwork's Green Team were trained in trash outreach</p> <p>20 posters hung in Idea Charter School and Ceaser Chavez Charter School</p>	
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