Sligo Creek
Trash Reduction Plan

Prepared for:
The Summit Fund of Washington

Prepared by:
Department of Environmental Programs
Metropolitan Washington Council of Governments

January, 2000

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Prepared by:
John Galli and Peter Guillozet

Department of Environmental Programs
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777 North Capitol Street, NE
Washington, D.C. 20002

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Executive Summary

Recent estimates indicate that approximately 20,000 tons of trash and debris annually find their way into the Anacostia River. The Sligo Creek Trash Reduction Initiative represents a critical component of a larger effort by the Anacostia Watershed Restoration Committee (AWRC), the State of Maryland, Montgomery and Prince George's Counties, and the District of Columbia to reduce the amount of trash entering the Anacostia River and its tributaries. Developed by the Metropolitan Washington Council of Governments (COG), with financial support from The Summit Fund of Washington, the Initiative's dynamic and comprehensive approach is intended to serve as a model for future trash reduction strategies in the other nine major Anacostia subwatersheds. This document, the Sligo Creek Trash Reduction Plan presents the Initiative's proposed phased, comprehensive approach for both reducing trash levels throughout the watershed, as well as increasing environmental stewardship. The many recommendations made by participants of the April 10, 1999 Sligo Creek Trash Reduction Workshop provided a framework for the Initiative.

The Initiative's principle objectives are to comprehensively document Sligo Creek stream trash levels, identify major trash sources, significantly reduce trash levels throughout Sligo Creek over the next three to five years through the creation of partnerships between residents, businesses, government, and the environmental community, and to foster environmental stewardship by enlisting participation in various phased restoration efforts and activities throughout the watershed.

A summary of the major findings, elements and recommendations of the proposed five-year multi-phased Plan are as follows:

1. Anacostia River/Sligo Creek Restoration Efforts

Since 1987 a multi-phase Sligo Creek restoration effort spearheaded by the Montgomery County Department of Environmental Protection and the Maryland-National Capital Park and Planning Commission has reduced water quantity and quality impacts associated with storm events and improved stream and riparian habitat conditions for fish and wildlife. To date, over $2.25 million dollars have been spent toward restoring Sligo Creek. Despite these impressive achievements, recent COG estimates indicate that Sligo Creek is still contributing some 50-100 tons of trash annually.

2. 1998-99 Sligo Creek Trash Survey Results

Spring 1998 and 1999 stream trash survey results identified several trash hot spots including upper Wheaton Branch, upper Long Branch, Takoma Park Branch and the lower Sligo Creek mainstem below New Hampshire Avenue. Survey results further indicated that watershed-wide, plastic bags, plastic bottles and aluminum cans were the top three trash items present in Sligo Creek. Trash sources include commercial shopping centers, higher density residential areas such as apartment complexes, convenience store and fast food establishments and major roadways. To a lesser and more local extent, illegal dumping and the littering of stream valley park picnic grounds, athletic fields and recreation facilities are also

problematic. Summer 1999 roadside trash survey results revealed that high roadside trash levels were not strongly correlated with traffic volumes. The preceding results provide further evidence that human behavioral factors, such as littering, are involved.

3. Community Building/Networking/Partnering

The Initiative's success depends upon the mobilization of a critical mass of the community and upon the creation of a self-sustaining network of watershed environmental stewards dedicated to pursuing its objectives. Major recommendations include:

- Establishing a Sligo Creek watershed network with one or more committed individuals or groups leading trash reduction related activities in each of the major tributaries and upper, middle, and lower Sligo Creek mainstem areas;
- Garnering much needed political support for both reducing trash levels and restoring environmental conditions throughout the watershed;
- Developing working public-private partnerships with the Anacostia River Business Coalition (ARBC) and with others in the Sligo business community;
- Creating and distributing bilingual outreach materials in an attempt to enlist broad-based support in the community;
- Convening biannual Sligo Creek Trash Reduction Stakeholder meetings to discuss problems, strategies, successes and promote partnering opportunities;
- Sponsoring annual multi-cultural trash reduction-related activities;
- Developing working partnerships with all the public and private schools in the watershed;
- Coordinating, where appropriate, Initiative activities, events and implementation with government agencies and the Planning Boards in both Montgomery and Prince George's Counties; and
- Increasing participation in M-NCPPC's Stream Striders Program and MCDEP's and PGDER's Stream Teams Programs.

4. Pollution Prevention/Environmental Education

Trash survey data from COG's long-term Sligo Creek monitoring site confirmed that: 1.) following a cleanup, trash levels generally return to previous levels within one year and 2.) achieving permanent reduction in trash levels will require a dramatic shift in human behavior. With programs such as the Stream Striders, Stream Teams and Adopt-A-Road already in place, it is recommended that future efforts focus on increasing the public's awareness of their existence and increasing participation.

Major recommendations include:

- Purchasing and installing signs at key road crossings (i.e., raise public awareness by identifying streams); and
- Painting storm drain inlets throughout the watershed with messages such as "Drains to Sligo Creek", "Don't Dump-Chesapeake Bay Watershed", or "Proteja Su Agua" (Protect Your Water).

5. Trash Generation Reduction/Recycling

Reducing the amount of trash generated is an important component of environmental stewardship. Recycling is another. While Sligo Creek residents benefit from active recycling programs, many are unaware of special waste collection days and/or are unable to travel long distances (e.g., to the Montgomery County Solid Waste Transfer Station located in Shady Grove or to Prince George's County's Brown Station Landfill in Upper Marlboro) to reach them. To facilitate progress toward cleaner Sligo streams both Montgomery and Prince George's Counties should expand efforts to ensure the proper disposal and/or recycling of hazardous household and automotive wastes. Major recommendations include:

- On a trial basis, establishing one or more county-designated household and automotive hazardous waste collection sites within the Sligo Creek watershed;
- Increasing public awareness of mobile household hazardous waste collection days and recycling efforts in both Montgomery and Prince George's Counties; and
- Increasing communication and the dissemination of Sligo Creek trash reduction-related information between county waste management agencies and the public through ads, mailing inserts, etc.

6. Monitoring Strategy/Frequency

Accurately tracking changes in trash levels in Sligo Creek will require the continuous, long-term monitoring of streams, key roadways, illegal dumping sites, and key storm drainage systems. A new monitoring partnership with students at Blair High School is especially promising.

While citizen-based and public sector cleanups can be effective tools for reducing trash levels in rivers and streams, certain areas may benefit from the employment of Best Available Technologies (BAT). Major BAT recommendations for implementation through public, private and public-private partnerships and programs include:

- Installing pilot trash booms in Long Branch downstream of Piney Branch Road and in the Takoma Park Branch immediately downstream of Ray Road;
- Installing low-cost, pilot trash catchers in the upper Sligo Creek mainstem immediately downstream of the intersection of Channing Drive and Blue Ridge Avenue, in the Flora Lane tributary, and along the south side of New Hampshire Avenue at the terminus of the existing storm drain outfall;
- Installing storm drain inlet grates at strategic locations in the Wheaton Branch Commercial Business District (CBD), Silver Spring Urban District, City of Takoma Park, and along the Sligo Creek mainstem portions of Piney Branch and Riggs Roads;
- Constructing a stormwater management facility designed to provide both water quantity and quality control for the Takoma Park Branch at a location between Ray and Red Top Roads; and
- Expanding routine street sweeping (via the employment of manual and/or vacuum sweepers) to include major commercial business district areas and shopping centers, as

well as the following roadways: University Boulevard, Piney Branch Road, New Hampshire Avenue and Riggs Road. Note: Street sweeping using vacuum sweepers is currently being performed in portions of the Wheaton CBD and Silver Spring Urban Districts.

7. Incentives Program

Many of the individuals in attendance at the April 10th and November 18th, 1999 Trash Reduction Workshop and Stewardship meetings agreed that groups and individuals who contribute significantly to trash reduction efforts in the Sligo Creek watershed should be recognized. It is recommended that recognition be in the form of awards such as certificates of appreciation, engraved placards or other incentives such as gift certificates from local businesses for merchandise, meals, or services.

8. Potential Funding Sources

The majority of Initiative-related accomplishments have been funded by a grant from the Summit Fund of Washington. Potential sources of funding for future efforts include local, county, state, and federal agencies, private foundations, environmental organizations, the business community and individual donors. The Initiative's continued success is heavily dependent upon continued funding, as well as upon non-monetary assistance in the form of donated materials and voluntary services.

9. Summary of Key Trash Reduction Plan Elements

Key Sligo Creek Trash Reduction Plan elements are summarized in Table 1. As seen in Table 1, the creation of a permanent Sligo Creek Trash Reduction Stakeholders Committee for guiding the Initiative into the future is among the highest priorities. It is envisioned that the Committee would include citizen, environmental group, business, local government and non-profit organization representatives. COG staff estimated that the annual implementation cost for Plan Elements/Activities nos. 1-14 (Table 1) would be on the order of $20,000-23,000 per year. Full five-year implementation of Plan Elements nos. 1-15 is estimated to be on the order of $700,000-900,000.

Table 1. Summary: Recommended Key Trash Reduction Plan Elements

Key Trash Reduction Plan Elements/Activities	Recommended Priority Level[1]
1. Form Permanent Sligo Creek Trash Reduction Stakeholders Committee	H
2. Biannual Stakeholders Meetings and Network Building	H
3. Garner Political Support and Media Attention	H
4. Seek and Secure Funding for Trash Reduction Initiative	H
5. Annual Watershed Trash Monitoring and Reporting	H
6. Multi-Cultural Trash Reduction Activities	M
7. Partnership Building w/Schools, Businesses and Government	H
8. Public Education, Pollution Prevention and Outreach	H
9. Stream and Trash Signage	L
10. Adopt-A-Road:	
• New Hampshire Ave.	M
• Riggs Rd.	M
• Piney Branch Rd.	M
• Other	L
11. Long Branch Stream Cleanup	H
12. Takoma Park Branch Stream Cleanup	H
13. Surveillance and Enforcement	M
14. Park Use/Permit Review	L
15. BAT Implementation	
• Pilot Trash Booms[2]	M
• Pilot Trash Catchers	L
• Storm Drain Inlet Grates	L
• Manual Street Sweeping	M
• Vacuum Sweeping	M
• Stormwater Management Facilities	H

1 Priority Level Abbreviations: L=Low; M=Medium; H=High

2 Long Branch and Takoma Park Branch

10. Phase I

Launched in November 1998, Phase I has involved extensive research, field surveys, analysis, networking, and strategic planning. It has also seen the convening of a Sligo Creek Trash Reduction Initiative Workshop attended by residents, businesses and local and state government representatives; publication of The Sligo Creek Trash Reduction Newsletter; the completion of a major Sligo Creek cleanup which featured both tree planting and an electrofishing demonstration; and the establishment of partnerships with both Blair High School and the Takoma Park Middle School.

11. Phase I and II Recommended Implementation Time Line

Time dependent recommendations, targeted problem areas and annual reassessment guidance include the following:

- Establishing a self-sustaining Sligo Creek watershed network with one or more individuals or groups leading efforts in each of the major tributaries within one year;
- Installing a total of three kiosks along the Sligo Creek mainstem and Long Branch by year three;
- Purchasing and installing signs at key stream crossings over the next three years;
- Replacing outdated illegal dumping signs at key locations over the next one to three years;
- Developing partnerships with all public schools in the Sligo Creek watershed within the next two years;
- Ensuring the adoption of all of Long Branch within the next two years;
- Conducting a major cleanup of Takoma Park Branch by the end of year two;
- Installing all recommended BAT controls within the next two to five years; and
- By years three to five, achieving a dramatic reduction in the amount of trash entering Sligo Creek and its tributaries (i.e., a downward shift to either the Light or None/Light trash index levels).

12. Targeted Problem Areas

Long Branch, one of Silver Spring's larger neighborhoods, encompasses only three square miles. For its small size, for its tremendous ethnic diversity, and for the fact that it is both a problem tributary and that several dedicated residents have shown strong support for the Initiative, Long Branch is recommended as the ideal testing ground for the trash reduction strategy.

13. Annual Reassessment

As with any effective plan, the Sligo Creek Trash Reduction Initiative has as its foundation a flexible but well-defined set of goals and a realistic time frame for achieving them. Biannual

Stakeholder Committee meetings and annual reassessments are recommended to help to ensure continued progress toward the long-term goal of a clean Sligo Creek.

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I. Trash Problem and Vision Statement

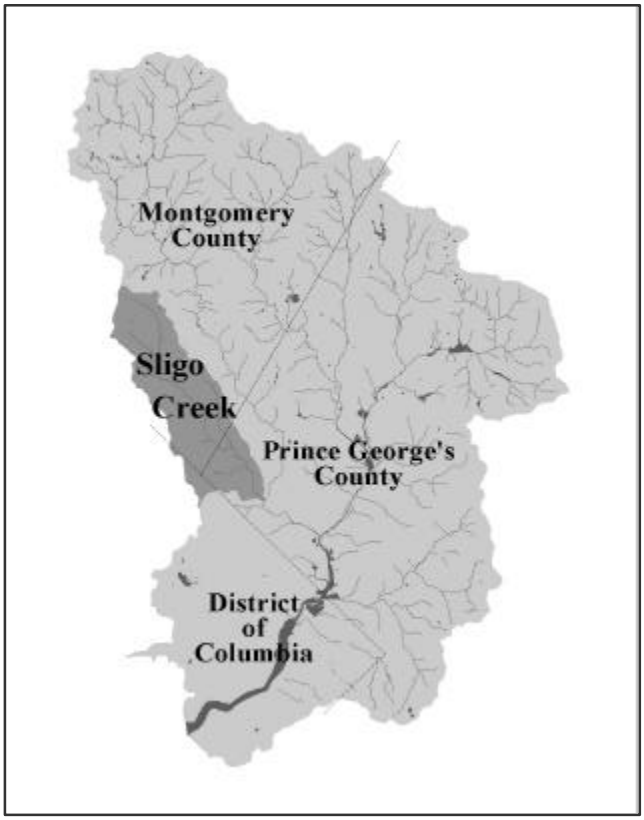

Figure 1. Anacostia River and Sligo Creek Watersheds

The problem of trash is one of the most pervasive facing urban waterways. This is especially true in the Anacostia River watershed, a 176-square mile area draining portions of Maryland's Montgomery and Prince George's counties and the District of Columbia (Figure 1). Recent estimates suggest that 20,000 tons of trash and debris find their way into the Anacostia River annually. The principal sources of this trash are people and their daily activities associated with roadways, parking lots, homes, apartment complexes, and businesses. As such, success in reducing trash levels requires major cooperation and a stronger environmental ethic on the part of watershed residents and visitors. In an area as large, diverse, and as densely populated as the Anacostia River watershed, this presents a tremendous challenge. Fortunately, many of the negative effects of urbanization can be observed, and more easily addressed, at the subwatershed scale. Accordingly, the Metropolitan Washington Council of Governments (COG), with financial support from The Summit Fund of Washington, has developed The Sligo Creek Trash Reduction Initiative (SCTRI). This pilot project is a critical component of a larger effort by the Anacostia Watershed Restoration Committee (AWRC), the State of Maryland, Montgomery and Prince George's counties, and the District of Columbia to reduce the amount of trash entering the Anacostia River and its tributaries. The Initiative's principle objectives are *to comprehensively document Sligo Creek stream trash levels, identify major trash sources, significantly reduce trash levels throughout Sligo Creek over the next three to five years through the creation of partnerships between residents, businesses, government, and the environmental community, and to foster environmental stewardship by enlisting participation in various phased restoration efforts and activities throughout the watershed.* If successful, the Initiative's dynamic and comprehensive approach will serve as a model for future trash reduction strategies in the other nine major Anacostia subwatersheds.

II. Anacostia River/Sligo Creek Restoration Efforts

Over the last 300 years, farming, urbanization, loss of wetland and forest habitat, erosion, sedimentation, and toxic pollution have taken a tremendous toll on the Anacostia River watershed. After centuries of neglect, the signing of the Anacostia Watershed Restoration Agreement and the establishment of the Anacostia Watershed Restoration Committee (AWRC) in1987 marked the beginning of a concerted and focused effort to restore and protect the river

and its tributaries. Efforts since then have reduced storm flows and the associated pollutants from over 10 square miles of developed areas through the construction of stormwater management (SWM) facilities. They have also resulted in the restoration of degraded habitat in over nine miles of streams, the opening of over 18 stream miles to migratory fish such as herring, and the reforestation of riparian buffers along nearly 11 linear stream miles. Among the other accomplishments are the acquisition of over 300 acres of stream valley parkland, the restoration of 32 acres of tidal wetlands, and the creation of approximately 100 acres of non-tidal wetlands.

With impervious surfaces such as roads, rooftops, and parking lots covering on average 35 percent of its 13.3 square mile land area, the Sligo Creek watershed is one of the most highly paved and urbanized of the ten major Anacostia subwatersheds. Such high levels of imperviousness prevent the infiltration of rainwater, resulting in large volumes of runoff and pollutants directed toward storm drains, and eventually into local streams. The force of these storm flows scours streambeds, erodes stream banks, degrades fish and benthic community habitat, and delivers myriad pollutants to local streams. However, a multi-phase Sligo Creek restoration effort spearheaded by the Montgomery County Department of Environmental Protection and the Maryland-National Capital Park and Planning Commission has reduced water quantity and quality impacts associated with storm events and improved stream and riparian habitat conditions for fish and wildlife. Major accomplishments since 1990 include the construction of six stormwater management facilities providing water quantity and quality control for over 1300 acres of developed land in upper Sligo Creek, the restoration of aquatic habitat in over 3.5 miles of upper Sligo Creek, the creation of two vernal pools for amphibian breeding habitat, the restoration of 10 acres of riparian habitat along Sligo Creek, the creation of 0.5 acres of marsh habitat, and the reintroduction of both native fish and amphibian species. Physical aquatic habitat conditions in both the Sligo Creek mainstem and Wheaton Branch were enhanced via the employment of stone wing deflectors, boulder fields, rootwads, placed rip-rap, log drops, rock vanes, log spurs, stream bank bioengineering and cedar tree brush bundles (Figure 2). The improved quality of aquatic habitat is evidenced by the increase in the number of established fish species in Sligo Creek from a low of three species in 1988 to 12 confirmed species in 1997. In addition, vernal pool and marsh habitat creation areas now support at least six amphibian species. To date, over $2.25 million dollars have been spent toward restoring Sligo Creek.

Figure 2. 1999 Sligo Creek Phase IV Restoration Efforts

Despite these successes, Anacostia tributaries, as previously stated, including Sligo Creek carry an estimated 20,000 tons or more of trash and debris to the tidal Anacostia River each year (Figure 3). Recent COG estimates indicate that Sligo Creek is responsible for contributing some 50-100 tons of this trash load (equivalent to approximately 10 dump truck loads). While many items are discarded directly into streams, much of this trash originates on roadways and parking lots and in stream valley parks throughout

the watershed, remaining there until it is flushed into the thousands of storm drains and hundreds of small streams that feed the Anacostia River. Figure 4 has been included to illustrate the distribution of the nearly 100 known storm drain outfalls present in the Sligo Creek watershed.

Acknowledging and responding to the problem, the State of Maryland, Montgomery and Prince George's Counties, the District of Columbia and the AWRC have all committed themselves to significantly reducing trash levels throughout the Anacostia watershed by the year 2010. However, unlike many of the restoration accomplishments to date, the trash problem cannot be solved entirely through structural means or by maintenance crews and equipment. Instead, it requires a commitment from all watershed residents and visitors to dispose of trash properly and to reduce trash levels through recycling and other appropriate methods.

Figure 3. Trash Along Anacostia River

III. 1998-99 Sligo Creek Trash Survey Results

A. Major Problem Areas

In 1998, COG staff conducted the first in a series of comprehensive trash surveys to assess the severity of the trash problem in the Anacostia tributary system. Developed with citizen volunteers in mind, the survey technique involves tallying and cataloguing the number and type of trash items observed along pre-established stream reaches. The initial spring 1998 survey yielded a watershed-wide picture of the trash problem in Sligo Creek while providing a baseline measure of trash levels prior to the Initiative. Not surprisingly, spring 1999 trash survey results were nearly identical (Figure 5).

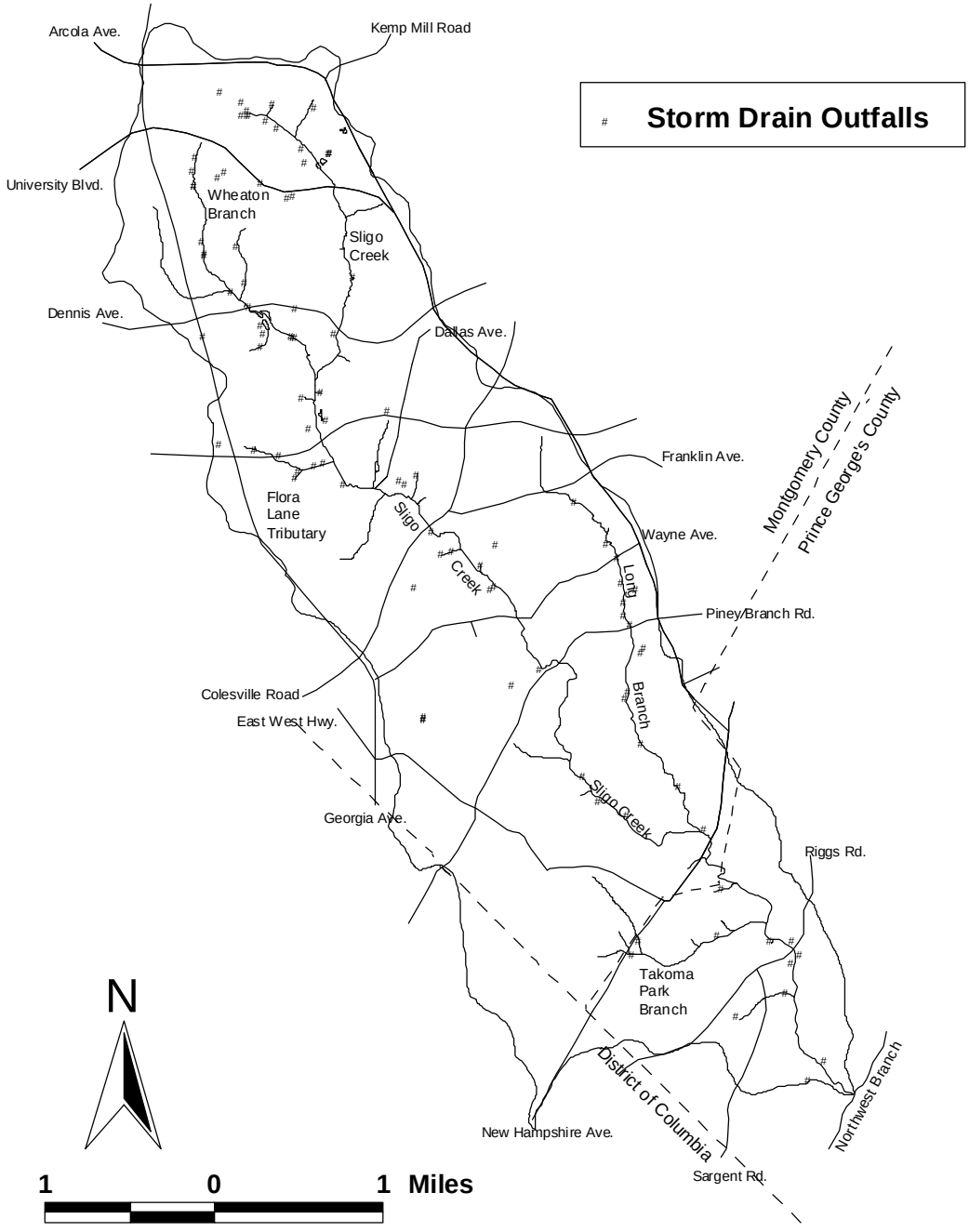

Figure 4. Storm Drain Outfalls in Sligo Creek Watershed

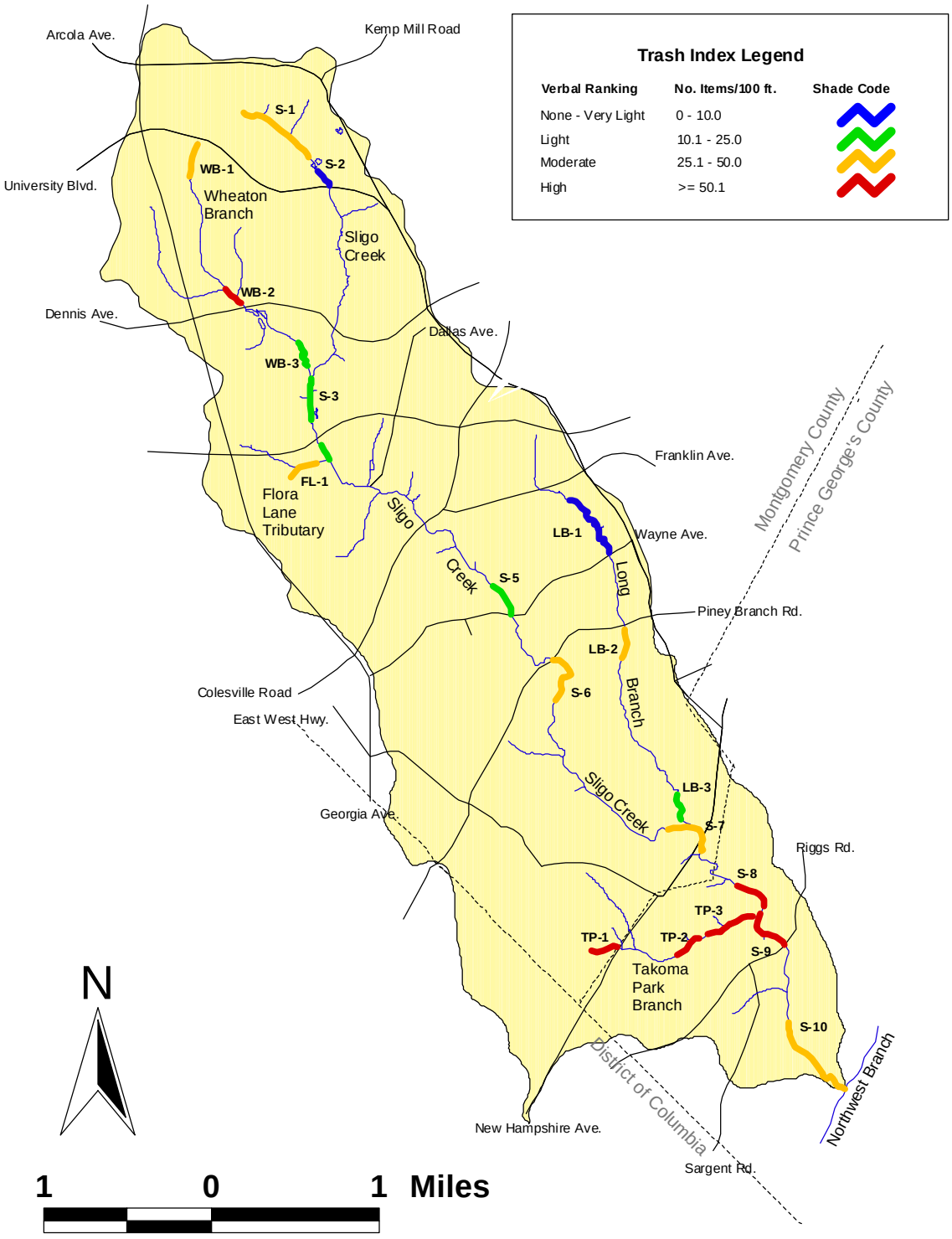

Figure 5. 1999 Sligo Creek Trash Survey

Importantly, both surveys identified several trash hot spots (i.e., stream segments with high trash levels). Stream areas exhibiting particularly high trash levels included upper Wheaton Branch, upper Long Branch, Takoma Park Branch and the lower Sligo Creek mainstem below New Hampshire Avenue. The trash surveys also revealed a distinct downstream trash trend and illustrated the effectiveness of the University Boulevard stormwater management facility in capturing floating trash (Figure 6). Survey results further indicated that watershed-wide, plastic bags, plastic bottles and aluminum cans were the top three trash items present in Sligo Creek.

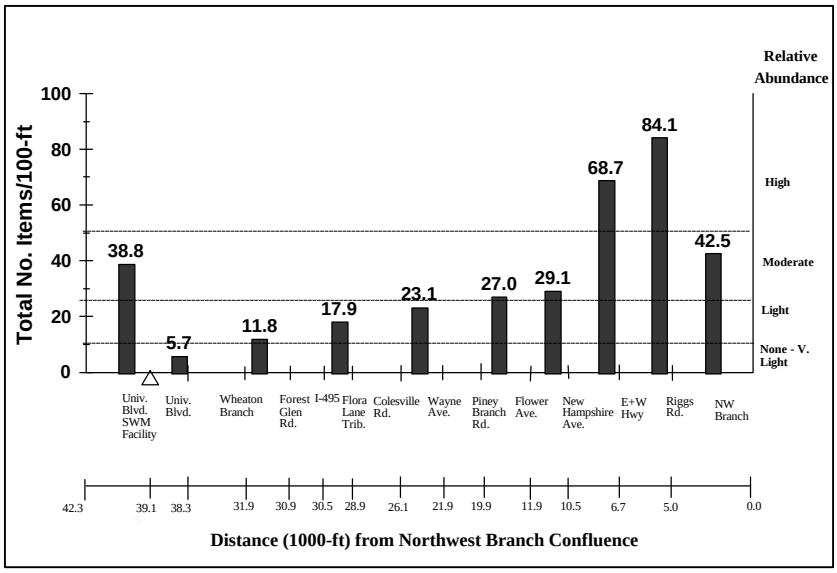

Figure 6. 1999 Downstream Trash Trend

B. Probable Sources

Observations indicate that much of the trash entering Sligo Creek originates in high use areas such as commercial shopping centers, higher density residential areas such as apartment complexes, convenience store and fast food establishments and major roadways. To a lesser and more local extent, illegal dumping and the littering of stream valley park picnic grounds, athletic fields and recreation facilities are also problematic. To quantify the contribution of one of these sources, the roadways, COG staff conducted a roadside trash survey in 1999. The survey area, which yielded 7,699 trash items, included approximately 12,800 linear feet along eight roads at their Sligo Creek crossings and along a segment of Sligo Creek Parkway. Like trash levels in the streams, roadside trash levels were found to be highest in the southern half of the watershed (Figure 7). Somewhat to COG staff's surprise, high roadside trash levels were not strongly correlated with traffic volumes. The preceding results provide further evidence that human behavioral factors, such as littering, are involved.

Additional stream and roadside surveys will help to further identify problem areas and trends; thereby providing the guidance necessary for the most effective allocation of limited resources, while also providing a quantifiable measure of the Initiative's success. Future surveys will also serve as an important outreach and education tool, allowing citizen volunteers to observe first-hand the amount and type of trash in their streams. As envisioned, the majority of future surveys will be conducted by volunteers as part of a broader effort to reduce trash levels and promote environmental stewardship at the local stream level.

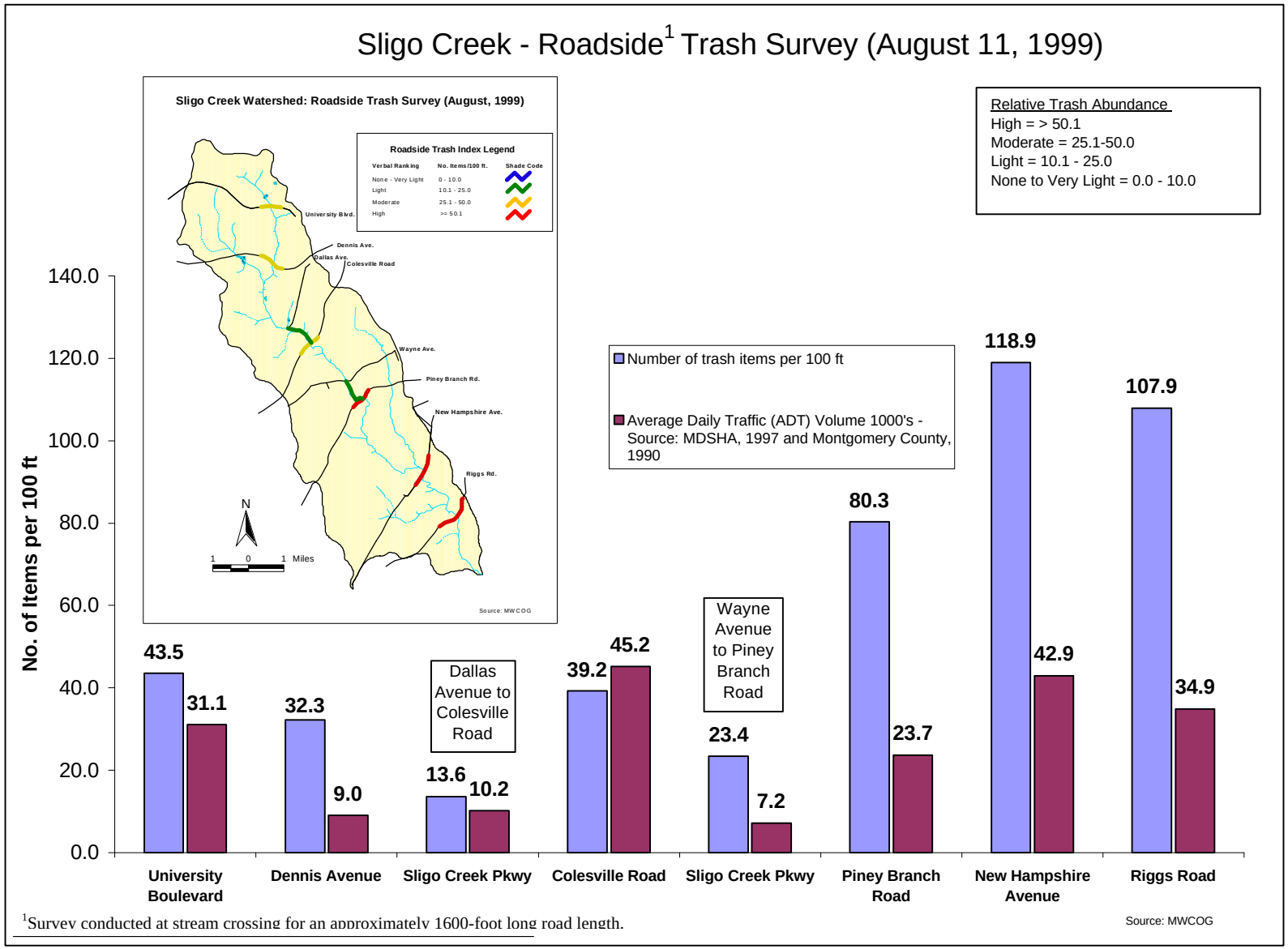

Figure 7. Roadside Trash Survey Results

IV. Elements of a Dynamic Subwatershed Trash Reduction Plan

By definition, a dynamic plan is one which features both a high degree of flexibility and regular, periodic reevaluation assessments of progress and strategy, with provisions for change as necessary. The following sections describe the major elements for the creation of a dynamic Sligo Creek Trash Reduction Plan, as well as recommendations, priority levels and estimated implementation costs.

A. Community Building/Networking/Partnering

Figure 8. April 10, 1999 Sligo Creek Trash Workshop

The Sligo Creek Trash Reduction Initiative represents a major step in the AWRC's commitment to combat the trash problem. Sligo Creek residents, businesses, and other interested parties were first introduced to the Initiative at a workshop held April 10, 1999 (Figure 8). Participants included representatives from civic associations, environmental groups, businesses and local governments who live and/or work in the watershed. The many recommendations made by workshop participants provided the framework for this document, the Sligo Creek Trash Reduction Plan, which presents a proposed phased, comprehensive approach for both reducing trash levels throughout the watershed, as well as increasing environmental stewardship.

While it was not born as a grassroots effort, the Initiative is intended to function in much the same manner. Its success depends upon the mobilization of a critical mass of the community and upon the creation of a self-sustaining network of watershed environmental stewards dedicated to pursuing its objectives. Although much progress has already been made, the Initiative's supporters face many challenges. One of these is to enlist the support of an ethnically diverse community. The 1990 U.S. Census indicated that Sligo's population of 81,943 was 55.5 percent White, 33.5 percent Black, 5.1 percent Asian, 0.4% American Indian, and 5.5 percent other. In 1990, at least 8,331 of these (10 percent of the total) claimed Spanish as their home language. Considering the growth of the Hispanic immigrant population in the Takoma Park, Silver Spring and Wheaton areas, the current figure may be significantly higher[1].

The October 23, 1999 Sligo Creek cleanup and tree planting event (Figure 9) and the November 18, 1999 Sligo Creek Trash Stewardship meeting held at Silver Spring Public Library are two

1 Note: Hispanics are a diverse group with individuals belonging to more than one racial category and representing more than one nationality.

examples of recent networking successes. To ensure community involvement and continued progress, plans for an event in early 2000 are being made.

Figure 9. October 23, 1999 Sligo Creek Cleanup and Tree Planting Event.

Recommendations:

- Establish a Sligo Creek watershed network with one or more committed individuals or groups leading trash reduction related activities in each of the major tributaries and upper, middle, and lower Sligo Creek mainstem areas;
- Garner much needed political support for both reducing trash levels and restoring environmental conditions throughout the watershed;
- Raise and increase awareness of the trash problem and support for the Initiative through greater media coverage and advertisement;
- Develop working partnerships with the Anacostia River Business Coalition (ARBC) and with others in the Sligo business community;
- Create and distribute bilingual outreach materials in an attempt to enlist broad-based support in the community;
- Encourage regular participation in the AWRC's Anacostia Trash Workgroup;
- Convene biannual Sligo Creek Trash Reduction Stakeholder Committee meetings to discuss problems, strategies, successes and promote partnering opportunities;
- Sponsor annual multi-cultural trash reduction-related activities;
- Develop working partnerships with all the public and private schools in the watershed;
- Coordinate, where appropriate, Initiative activities, events and implementation with government agencies and the Planning Boards in both Montgomery and Prince George's Counties;
- Enlist support and participation from local churches, the Boy Scouts, the Girl Scouts and other non-profit groups;
- Increase membership and active participation in Sligo-based environmental groups such as the Friends of Sligo Creek;
- Increase internet accessibility to Sligo Creek-related web sites (e.g., AWRC's Anacostia Web Site, MCDEP's, Friends of Sligo Creek); and
- Increase participation in M-NCPPC's Stream Striders Program and MCDEP's and PGDER's Stream Teams Programs.

B. Pollution Prevention/Environmental Education

Individuals, organizations, and government agencies have made significant progress in efforts to educate Sligo residents about the importance of protecting the watershed. Among the state and county run programs with this goal are the Maryland Save Our Streams program, Montgomery County's Adopt-A-Road, Maryland-National Capital Park and Planning Commission's (M-NCPPC) Stream Striders, and Montgomery County Department of Environmental Protection's (MCDEP) Stream Teams Program, and Prince George's County Department of Environmental Resources (PGDER) Stream Teams Program. Montgomery County also runs the Storm Drain Painting Project for Chesapeake Bay Awareness and Clean Water Partners, a voluntary information-sharing initiative designed to promote an ongoing dialogue between the Department of Environmental Protection (MCDEP) and the public to prevent stormwater pollution. Additional educational assistance is provided by non-profit organizations such as the Audubon Naturalist Society and the Izaak Walton League of America, which offer stream-monitoring workshops. Not surprisingly, the success of each of these programs depends upon the involvement of large numbers of volunteers from across the watershed. Local businesses can also play an important educational role. By displaying posters and flyers or by contributing advertising, printing, or copying services they can help to increase public involvement in meetings and cleanup events. Members of the Anacostia River Business Coalition (ARBC) have made significant contributions in this capacity. Business can also help to promote such events by presenting participants with awards and/or by providing refreshments, t-shirts, hats or other event-related items or services.

Since well-informed and motivated students may prove to be among the Initiative's most effective supporters and participants, schools must be encouraged to play an active role in providing both environmental education and community service opportunities. While all public schools and many private schools in Maryland have environmental education curricula, Sligo schools have a unique opportunity to provide their students with meaningful, hands-on experience in watershed stewardship. Recent commitments by students and teachers at Blair High School and Takoma Park Middle School mark an important first step.

With programs such as the Stream Striders, Stream Teams and Adopt-A-Road already in place, future efforts should focus on increasing the public's awareness of their existence and increasing participation. The trash survey results along with input from Sligo Creek watershed residents suggest that this can be most easily achieved by targeting education efforts to residents in areas with the most severe trash problems. Following this approach, two high priority areas are recommended for intensified trash surveys, bilingual community outreach efforts, and future cleanup events. The first of these is the commercial/residential neighborhood bordering Long Branch between Flower Avenue and University Boulevard near Piney Branch Road. The second borders the Takoma Park Branch between East-West Highway and Eastern Avenue near New Hampshire Avenue (Figure 10).

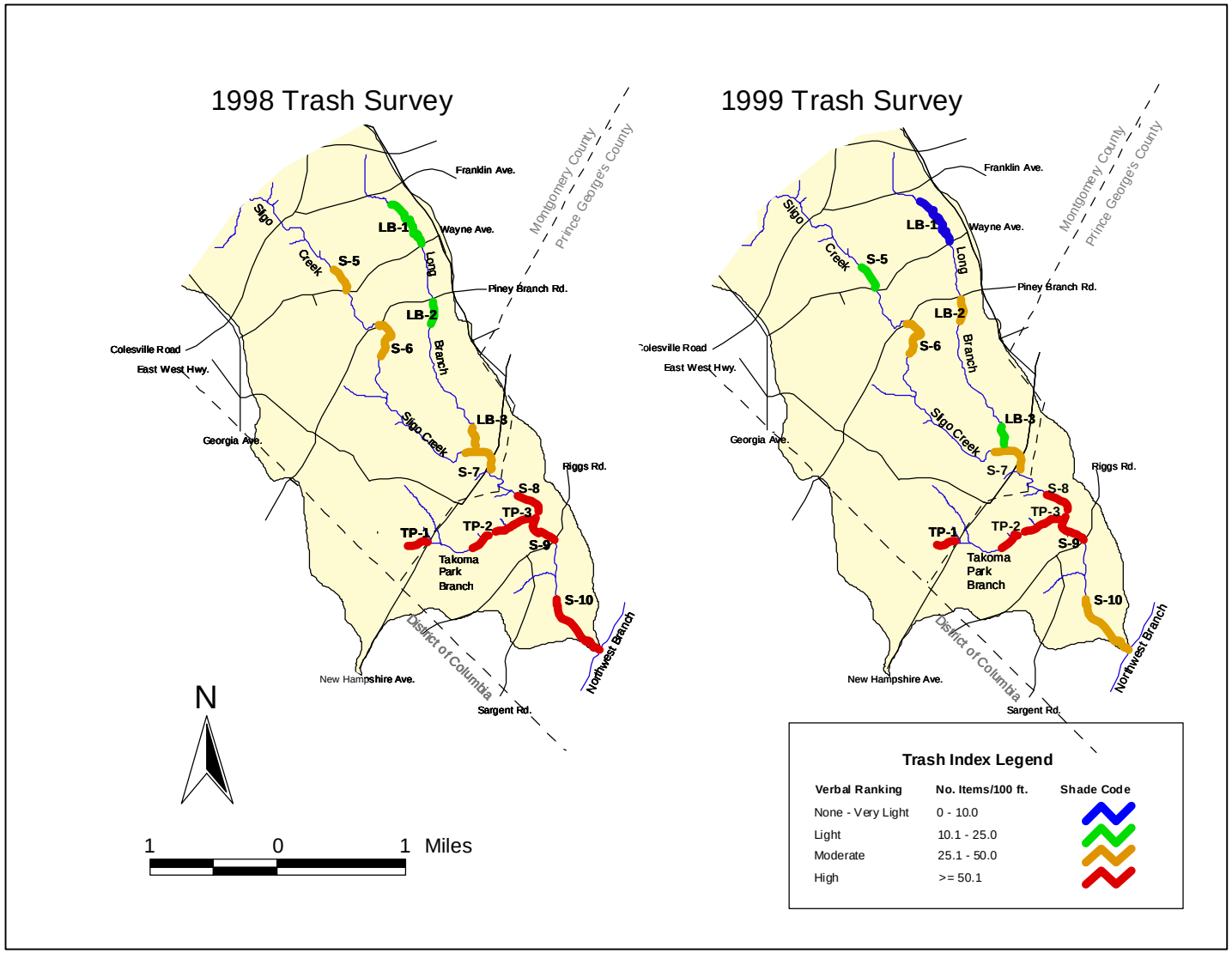

Figure 10. 1998 and 1999 Lower Sligo Creek Watershed Trash Levels

Trash survey data from COG's long-term Sligo Creek monitoring site show that following a cleanup, trash levels generally return to previous levels within one year (Figure 11). This is a compelling argument for conducting stream cleanups at least twice a year. It also reinforces the contention that achieving a permanent reduction in trash levels will require a dramatic shift in human behavior. To effect such a change is a significant challenge, especially in a population as diverse as Sligo Creek's. Therefore, it should be recognized that the Initiative's multifaceted approach for accomplishing its intended objectives will require several years.

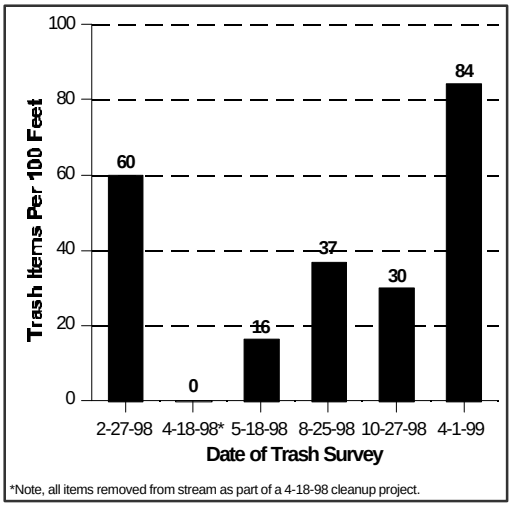

Figure 11. Sligo Creek Trash Monitoring Station: East-West Highway to Riggs Road

Recommendations:

- Develop partnerships with all public and private schools in the Sligo Creek watershed;
- Purchase and install signs at key road crossings (i.e., raise public awareness by identifying streams);
- Paint storm drain inlets throughout the watershed with messages such as "Drains to Sligo Creek", "Don't Dump-Chesapeake Bay Watershed", or "Proteja Su Agua" (Protect Your Water); and
- Promote increased participation in existing county programs such as Stream Teams and Stream Striders.

C. Trash Generation Reduction/Recycling

Reducing the amount of trash generated is an important component of environmental stewardship. Recycling is another. In Montgomery County, recycling is mandatory in commercial buildings and in both single and multi-family residences. The current recycling rate is 45 percent with a program goal of 50 percent by 2000. Household hazardous wastes, automotive fluids, and batteries are accepted only at the Solid Waste Transfer Station at the intersection of Route 355 and Shady Grove Road. The Montgomery County Department of Public Works and Transportation (DPWT) also has a mobile hazardous waste collection program which includes pick up of these materials several times throughout the year. In Prince George's County, commercial and residential recycling is voluntary, while multi-family residential recycling is mandatory. The current recycling goal is 35 percent by 1999. Household, automotive, and other hazardous wastes, with the exception of household batteries, are collected each spring and fall, but only at a predetermined location that is changed from year to year. The City of Takoma Park has a mandatory commercial, residential, and multi-family recycling program with a current recycling rate of 44 percent. Takoma Park also accepts used motor oil and antifreeze that is delivered to 31 Oswego Avenue. **In addition to the public collection sites used motor oil, antifreeze, and batteries are accepted seven days a week at the Pep Boys store located at 1804 University Boulevard.**

While Sligo Creek residents benefit from active recycling programs, many are unaware of special waste collection days and/or are unable to travel long distances (e.g., to the Montgomery County Solid Waste Transfer Station located in Shady Grove or to Prince George's County's Brown Station Landfill in Upper Marlboro) to reach them. To facilitate progress toward cleaner Sligo streams both Montgomery and Prince George's Counties should continue to expand their current efforts to promote proper disposal and/or recycling of hazardous household and automotive wastes.

Recommendations:

- On a trial basis, establish one or more county-designated household and automotive hazardous waste collection sites within the Sligo Creek watershed;
- Expand and regularize waste collection site schedules (e.g., Saturday and Sunday, 9am-5pm); and
- Increase communication and the dissemination of Sligo Creek trash reduction-related information between county waste management agencies and the public through ads, mailing inserts, etc.

D. Monitoring Strategy/Frequency

Accurately tracking changes in trash levels in Sligo Creek will require the continuous, long-term monitoring of streams, key roadways, illegal dumping sites, and key storm drainage systems (Figure 12). Although monitoring issues have been the focus of conversations with civic associations, scouting groups, and local jurisdictions, a new partnership with students at Blair High School is an especially promising example. As a part of a commitment to adopt several sections of Long Branch, Blair's Students for Global Responsibility (SGR) plan to conduct monthly trash surveys and cleanups. In doing so, each student will receive credit toward a seventy five-hour community service requirement while helping to establish a tradition of environmental stewardship among their peers. At COG staff's urging, SGR leaders recently submitted a grant proposal to the Chesapeake Bay Trust soliciting funds for the purchase of hip boots, signs, and other survey and cleanup materials.

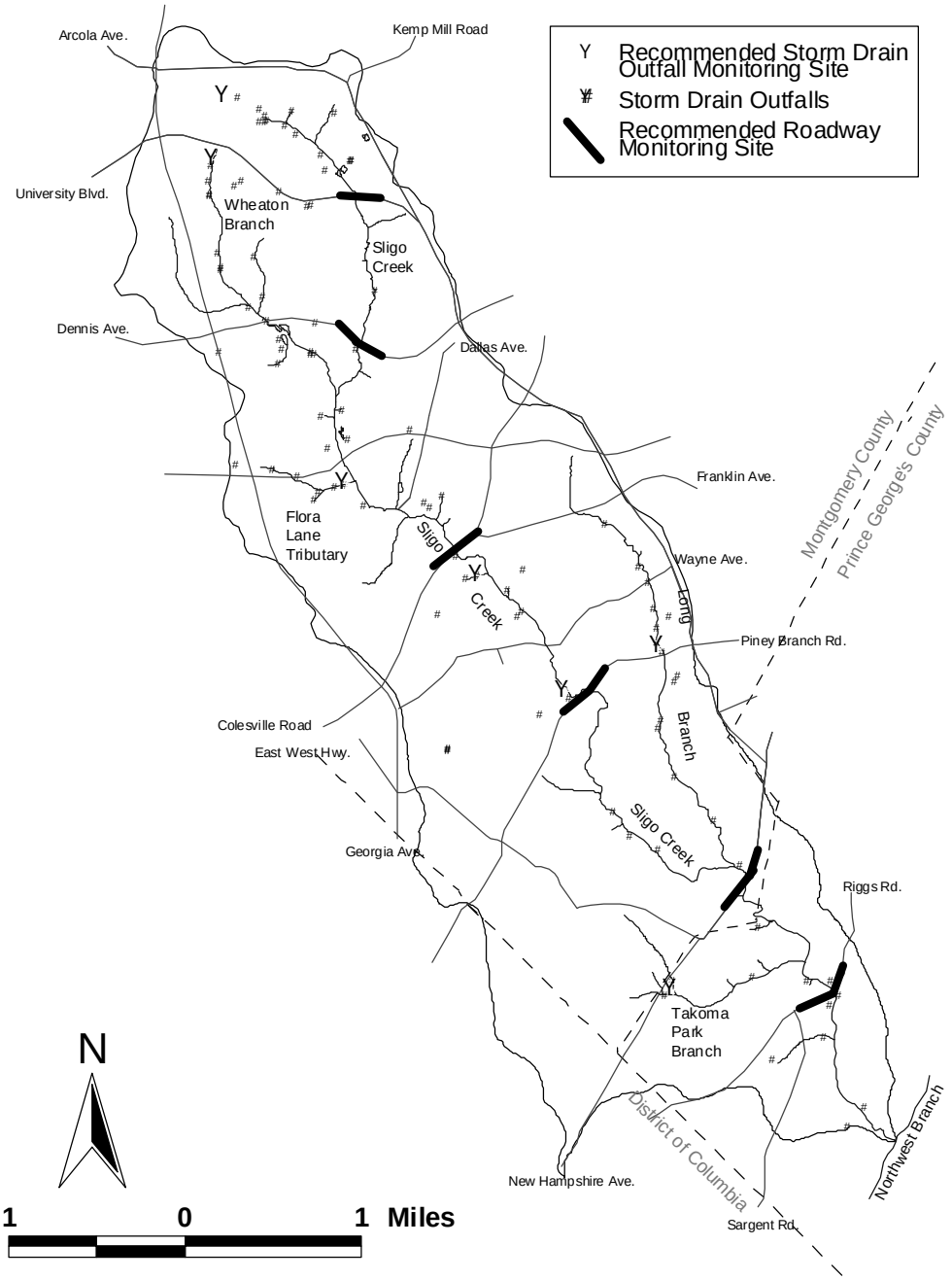

Figure 12. Recommended Roadway and Storm Drain Outfall Monitoring Sites

In addition to stream monitoring activities, students at Takoma Park Middle School are planning to produce a monthly newsletter featuring natural history information and current events in the Sligo Creek watershed. It is envisioned that the newsletter will be displayed on several proposed, strategically located kiosks within Sligo Creek Park. (Figure 13).

Figure 13. Sligo Creek Park Kiosk

Churches, civic association, scout troops, and any other interested parties can get involved in monitoring efforts by adopting sections of Sligo Creek or one of its tributaries. An example is The Seven Oaks-Evanswood Citizens Association, which has removed trash from Sligo Creek Parkway between Colesville Road and Wayne Avenue and from a corresponding section of Sligo Creek for several years through an agreement with Montgomery County's Stream Team organizers. At present, many Sligo roadways are available for monitoring and cleanups. The same is true of most of Sligo Creek and its tributaries. Information is available from Maryland's Save Our Streams program and from the Montgomery and Prince George's County Adopt-A-Road programs. In general, these programs require a two-year commitment of four or more cleanups per year.

Recommendations:

- Focus monitoring and cleanup efforts along roadway areas with the highest and most persistent trash problems (e.g., expand Adopt-A-Road adoptions to include sections of Piney Branch Road, New Hampshire Avenue, and Riggs Road at Sligo Creek stream crossings);
- Ensure the adoption of all of Long Branch, the Takoma Park Branch and the lower Sligo Creek mainstem; and
- Establish a tradition of minimum annual spring stream trash surveys and twice-yearly stream cleanups in the Sligo Creek watershed (e.g., Montgomery County Community Services Day, third week in October and Earth Day, third week in April).

E. Surveillance/Enforcement

Surveillance and the enforcement of anti-dumping laws can play an important role in improving the quality and aesthetic appearance of urban streams. To a large extent this is the responsibility of the Maryland-National Capital Park and Planning Commission (M-

NCPPC) Park Police, Montgomery and Prince George's County Police, Takoma Park Police, The Montgomery County Department of Environmental Protection (MCDEP), and the Prince George's County Department of Environmental Resources (PGDER) programs and initiatives. However, groups and individuals throughout the watershed can assist these agencies in protecting Sligo streams by watching for and reporting illegal dumping. This includes not only the dumping of trash and debris, but also the dumping of chemicals, pesticides, automotive fluids and other pollutants into storm drains, streams or onto any site that is not an approved solid waste facility.

The State of Maryland has in place a law that imposes a $25,000 fine and/or up to five years in jail for illegal dumping. Unfortunately, limitations on enforcement and tracking capabilities severely limit its effectiveness. The many outdated signs posted throughout the watershed further weaken such legislation. For example, one park bordering Long Branch has signs indicating $100, $250, and $1,000 fines (Figure 14).

Figure 14. No Dumping Signs, Long Branch

Among other concerns, Sligo residents attending the November 18, 1999 Sligo Creek Trash Reduction Stewardship meeting voiced concerns about the ongoing misuse of neighborhood parks and sports fields. The issues ranged from the loss of esthetic value due to graffiti and litter to public safety issues resulting from the illegal consumption of alcohol. Among the solutions proposed were: 1.) Working with M-NCPPC Park Administration staff to review and possibly revise facility-use permit requirements, 2.) the formation of "Creek Watch" groups, and 3.) the increased enforcement of no dumping and anti-littering fines by law enforcement officers. Among other things, these issues highlighted the need for increased cooperation among civic associations, community leaders, and law enforcement in promoting the responsible use of these facilities. This can be accomplished in part through positive dialogue with park and soccer field users and

Figure 15. Bilingual Sign, Long Branch

through better communication with schools, community centers, and the soccer leagues to which many players belong. Another approach involves the strategic placement of bilingual anti-littering signs (Figure 15) and trash receptacles in certain high use areas. Although some argue that these are ineffective, they can help to increase public awareness while eliminating confusion concerning local laws.

Recommendations:

- Strategically place bilingual signs and trash receptacles in high-use areas;
- Review permit requirements/create new requirements for team use of athletic fields;
- Encourage communication between local residents and law enforcement agencies to increase enforcement of anti-dumping and anti-littering laws; and
- Replace outdated anti-dumping signs and install new ones in problems areas.

F. Trash Delivery Reduction and Collection

While citizen-based and public sector cleanups can be effective tools for reducing trash levels in rivers and streams, certain areas may benefit from the employment of Best Available Technologies (BAT). A few of these, including stormwater management facilities, in-line and end of pipe trash catching devices, and mechanical and manual street sweeping are described below and summarized in Table 2.

Stormwater Management Facilities

Since 1990 a number of stormwater management projects have reduced the impacts of stormwater runoff on Sligo Creek. Stormwater Management (SWM) facilities in the subwatershed now include Wheaton Branch SWM facility, University Boulevard SWM facility, the Sligo Creek golf course SWM facility, and two stormwater wetlands in the vicinity of Godwin Drive and the Capital Beltway (Figure 16). While these facilities are both large and expensive to build, the 1998-99 Sligo Creek trash survey results indicate that, in addition to reducing the quantity and improving the quality of stormwater runoff, and providing much needed wildlife habitat, they capture a significant amount of trash in upper Sligo Creek.

Figure 16. Wheaton Branch Stormwater Management Pond #2

Storm Drain Inlet Grates

Storm drain inlet grates are generally designed to prevent the passage of larger trash items into storm drains and, ultimately, into streams. One type (InletGuard™) consists of an aluminum guard that is installed over existing inlets (Figure 17). The approximate cost of an installed grate for a typical storm drain inlet is $250. Several grates are in use in the City of Gaithersburg, at the United Parcel Service facility near Interstates 270 and 370, at the National Institutes of Health in Bethesda, and at the Navy Yard in the District of Columbia. Since they prevent the passage of trash items larger than 1 3/8" in diameter, they require regular inspection and maintenance to prevent blockage.

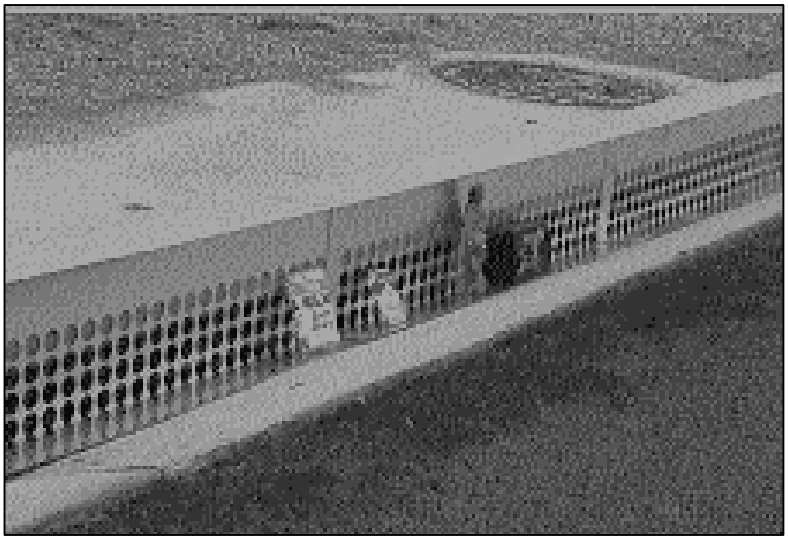

Figure 17. Storm Drain Inlet Grate

Trash Catching Devices

Another approach is to employ trash-catching devices that, unlike inlet grates, capture trash that has already entered storm drain systems or streams. Several designs are currently in use in cities such as Nashville, Newark, New York, and Philadelphia. These can be installed in-line or at the end of a storm drain pipe and, although expensive, they are designed to capture up to 95 percent of trash items without causing flood problems. One model (TrashTrap™) captures trash in disposable mesh bags. These must be changed by a truck equipped with a hydraulic boom, a process that takes between 30 and 120 minutes and that must be carried out 20 to 50 times per year depending on rainfall and trash levels. These devices capture litter at fewer points than storm drain inlet grates and, despite a cost of $50,000 or more, may be less expensive to maintain. An alternative for both small storm drain outfalls and streams involves the construction of inexpensive trash catchers. These may be constructed of chain link fencing or some similar material attached to either galvanized steel posts or steel aircraft cable secured to a deadman located on both sides of the outfall channel. Although this arrangement would be somewhat less effective than the mesh bag system and would last only a few years there may be sites in which the trial use of such catchers would be appropriate. Still another approach involves the use of floating booms. When placed across a slow moving section of a river or stream these can capture over 90 percent of floating trash. While both relatively inexpensive ($100-$2,000 for a typical installation) and easy to install, trash booms are prone to a host of problems including frequent breakage, and require frequent maintenance/removal of trash. In addition, booms must be replaced every year. An appropriate boom site is easily accessible and free from heavy, damaging storm flows.

Stormwater Treatment Devices

These devices temporarily divert stormwater into chambers in which significant amounts of pollutants and trash are removed and retained. One design (Storm Treat™) consists of a series of recycled polyethylene sedimentation chambers and constructed wetland, which remove some trash and many common pollutants. A single installed system costs approximately $7000. Maintenance involves cleaning the sediment tanks every three years at a cost of $120. Another model (BaySaver™) consists of prefabricated concrete chambers designed for incorporation into a new or existing underground storm drain system. If properly maintained ($450 to $750/year), these systems can be highly effective at capturing trash. Costs for an installed system range from $9,000 to $17,500.

Street Sweeping

Street sweeping can dramatically reduce the amount of litter and accumulated pollutants entering storm drains (Figure 18). Modern regenerative air and vacuum-assisted dry sweepers are far more effective at capturing both trash and small diameter particles than conventional mechanical broom sweepers. Vacuum-assisted dry sweepers (e.g., EV2™) which can capture sediments measuring only 2.5 microns in diameter are the most advanced and, at up to $250,000, the most expensive. Sweeping effectiveness can vary depending upon pollutant accumulation rate, particle size, pavement type, sweeper type, and the relationship between sweeping frequency and rainfall. Nonetheless, and despite the high initial cost, evidence indicates that street sweeping can be a cost-effective technique in efforts to reduce street trash.

Figure 18. Regenerative-Air Vacuum Sweeper

At present, Montgomery County sweeps nearly 90 percent of county-maintained roads using mechanical broom sweepers once each year between March and July. The City of Takoma Park recently purchased a regenerative-air sweeper and began sweeping commercial areas every Monday. Sweeping in residential areas is scheduled to begin in late 1999 at a rate of four times per year on a trial basis. Although well intended, both of these programs operate at insufficient frequencies. An exception in the watershed is the Silver Spring Urban District's very effective program. With its regenerative-air sweeper, this public-private partnership sweeps 26 curb miles three times a week at a cost of approximately $60,000 per year. In some areas manual sweeping might be a viable alternative to mechanical sweeping. This typically employs one or several individuals with rolling trash barrels and has long been an effective option for reducing street trash. In addition to beautifying urban areas, manual street sweeping provides employment, has low capital costs, and may be easily implemented since it has few land or energy requirements.

Table 2. Best Available Technology (BAT) for Reducing Instream Trash Loads

Type		Application /Location	Effectiveness	Initial Cost	Maintenance Frequency/Cost	Expected Longevity	Other Considerations
Storm Drain Inlet Grates (e.g., InletGuard™) Grate only		New or existing inlets in parking lots and along roads	Prevents passage of trash items >1 3/8" in diameter	$14/linear foot or approx. $250/inlet (installed)	Weekly or monthly inspections to prevent blockage	>10 years Aluminum construction	Requires no modification of existing inlet, 40% reduction in opening size
Trash Catching Devices	(e.g.,TrashTrap™)	In-line or end of pipe	Captures >95% of material >1/2"	>$50 K (installed)	Mesh bags changed 20-50 times/year, requires a boom equipped truck and 30–180 minutes	>20 years Steel and/or aluminum construction	May require modification of existing structures
	Chain link barrier	End of pipe, small catchments	May capture a significant portion of floating trash	~$150	Weekly inspection/ trash removal	>2 years Galvanized steel posts and mesh	May block flow
Trash Booms (e.g., TexasBoom™)		In stream at end of pipe	Captures 90-95% of floating trash >1 1/2"	$17-$20/ft. or $1,000-$1,500 (installed)	Weekly or monthly inspection Annual replacement	1 year Vinyl	May break during heavy flows Vandalism is common
Pollution Reduction Systems	(e.g., StormTreat™)	In-line	Captures some trash and up to 90% of common pollutants	$7000 (installed)	Annual inspection and cleaning of sediment tank every 3 years at a cost of $120	>20 years Recycled polyethylene	Treats 1 acre of impervious surface
	(e.g., BaySaver™)	In-line	Captures up to 100% of trash	$9,000-17,500 (installed)	Annual cleaning of sediment tank with a vacuum truck (3-5 hrs@ $150/hr.)	>20 years Concrete	Waste must go to treatment facility
Street Sweeping	Broom Sweeper	Commercial and residential streets	Captures trash and particles >100 microns	$135-140 K	$16/hour of use	5-7 years @ 1000hrs/year	Also captures heavy items
	Regenerative Air Vacuum Sweeper	Commercial and residential streets	Captures trash and particles to 60 microns (Schwarze™ A7000 to 10 microns)	$125-130 K	$12/hour of use	5-7 years **@** 1000hrs/year	_____
	EV2™ Vacuum Sweeper	Commercial and residential streets	Captures trash and particles to 2.5 microns	$225 K	<$12/hour of use	5-10 years **@** 1000hrs/year	_____
	Manual Sweeping	Commercial areas	Captures most of trash in area	Varies widely	Daily or weekly	_____	_____

Recommendations:
The general locations of recommended BAT control sites for implementation through public, private and public/private partnerships and programs are shown in Figure 19 and outlined as follows.

- Install pilot trash booms in Long Branch downstream of Piney Branch Road and in the Takoma Park Branch immediately downstream of Ray Road;

- Install low-cost, pilot trash catchers in the upper Sligo Creek mainstem immediately downstream of Channing Drive and Blue Ridge Avenue storm drain outfalls, in the Flora Lane tributary, and along the south side of New Hampshire Avenue at the terminus of the existing storm drain outfall;

- Install storm drain inlet grates at strategic locations in the Wheaton Branch Commercial Business District (CBD), Silver Spring Urban District, City of Takoma Park, and along the Sligo Creek mainstem portions of Piney Branch and Riggs Roads;

- Construct a stormwater management facility designed to provide both water quantity and quality control for the Takoma Park Branch on Prince George's County-owned land located between Ray and Red Top Roads; and

- Expand routine street sweeping (via the employment of manual and/or vacuum sweepers) to include major commercial business district areas and shopping centers, as well as the following roadways: University Boulevard, Piney Branch Road, New Hampshire Avenue and Riggs Road. Note: Street sweeping using vacuum sweepers is currently being performed in portions of the Wheaton CBD and Silver Spring Urban Districts.

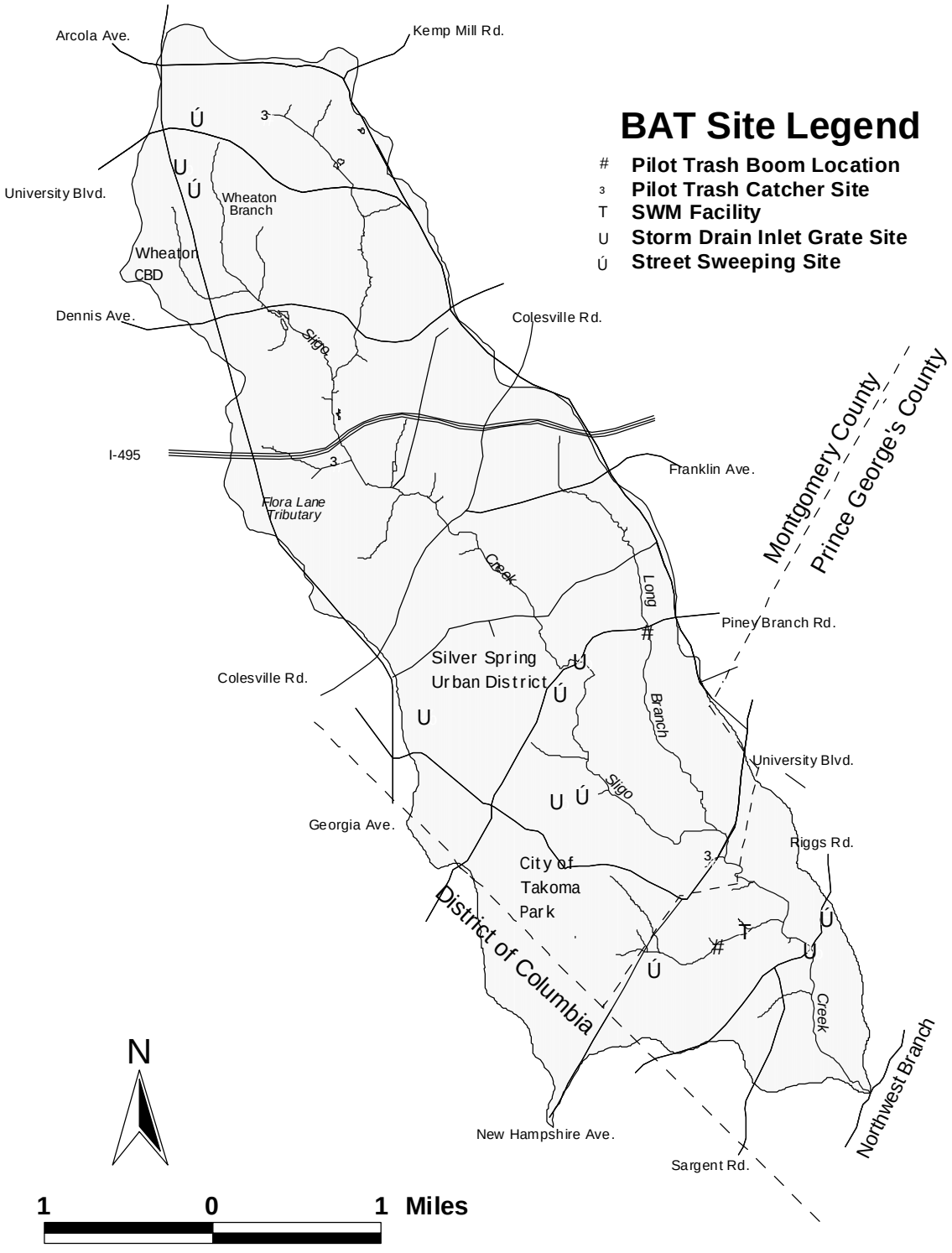

Figure 19. Recommended Trash Control Sites

G. Incentives Program

Many of the individuals in attendance at the April 10th and November 18th, 1999 Trash Reduction Workshop and Stewardship meetings agreed that groups and individuals who contribute significantly to trash reduction efforts in the Sligo Creek watershed should be recognized. This recognition may be in the form of awards such as certificates of appreciation, engraved placards or other incentives such as gift certificates from local businesses for merchandise, meals, or services. Potential sources of such awards include, but are not limited to the following:

- The Anacostia Watershed Restoration Committee (AWRC);
- The Anacostia River Business Coalition (ARBC);
- Sligo Creek Civic Associations;
- Local Jurisdictions;
- Non-Profit Environmental Organizations;
- Local Environmental Groups such as The Friends of Sligo Creek; and
- Private Businesses.

H. Potential Funding Sources

The majority of Initiative-related accomplishments have been funded by a grant from the Summit Fund of Washington. Potential sources of funding for future efforts include local, county, state, and federal agencies, private foundations, environmental organizations, the business community and individual donors. The Initiative's continued success is heavily dependent upon continued funding, as well as upon non-monetary assistance in the form of donated materials and voluntary services. Examples of the latter include lumber and/or carpentry skills for the construction of kiosks, trash removal services for cleanup events, and advertising in the local media. Examples of potential Initiative funding sources include, but are not limited to the following:

- The Silver Spring Urban District (e.g., stormwater management waiver fees);
- EPA Challenge Grants;
- Local Utilities;
- The Summit Fund of Washington;
- Maryland Department of the Environment (MDE) stream restoration and stormwater management cost-share programs;
- 319 Grants;
- Maryland Clean Water Action Plan (CWAP);
- The Chesapeake Bay Trust;
- Alliance for the Chesapeake Bay;
- Montgomery County Parks Foundation;
- The Cafritz Foundation; and
- The Anacostia River Business Coalition.

I. Summary of Key Trash Reduction Plan Elements

Key Sligo Creek Trash Reduction Plan elements from the previous sections and their recommended priority levels and associated costs are presented in Table 3. As seen in Table 3, the creation of a permanent Sligo Creek Trash Reduction Stakeholders Committee for guiding the Initiative into the future is among the highest priorities. It is envisioned that the Committee would include citizen, environmental group, business, local government and non-profit organization representatives.

Using the estimated costs shown in Table 3 as a general guide, COG staff estimated that the annual implementation cost for Plan Elements/Activities nos. 1-14 (Table 3) would be on the order of $20,000-23,000 per year. Not surprisingly, the addition of BAT's such as the construction of a stormwater management facility on the Takoma Park Branch would greatly increase implementation costs. Full five-year implementation of Plan Elements nos. 1-15 is estimated to be in the $700,000-900,000 cost range.

Table 3. Summary: Recommended Key Trash Reduction Plan Elements and Associated Costs

Key Trash Reduction Plan Elements/Activities	Recommended Priority Level[1]	Estimated Cost ($)[2]
1. Form Permanent Sligo Creek Trash Reduction Stakeholders Committee	H	$2,000-3,000
2. Biannual Stakeholders Meetings and Network Building	H	$500-1,000/yr.
3. Garner Political Support and Media Attention	H	N/A
4. Seek and Secure Funding for Trash Reduction Initiative	H	N/A
5. Annual Watershed Trash Monitoring and Reporting	H	$2,000-4,000/yr.
6. Multi-Cultural Trash Reduction Activities	M	$500-2,000/event
7. Partnership Building w/Schools, Businesses and Government	H	N/A
8. Public Education, Pollution Prevention and Outreach	H	$5,000-10,000/yr.
9. Stream and Trash Signage	L	$75-150/sign
10. Adopt-A-Road:		
• New Hampshire Ave.	M	$200-500/cleanup
• Riggs Rd.	M	$200-500/cleanup
• Piney Branch Rd.	M	$200-500/cleanup
• Other	L	_____
11. Long Branch Stream Cleanup	H	$500-1,000/cleanup
12. Takoma Park Branch Stream Cleanup	H	$1,000-2,000/cleanup
13. Surveillance and Enforcement	M	N/A
14. Park Use/Permit Review	L	N/A
15. BAT Implementation		
• Pilot Trash Booms[3]	M	$1,000-2,000/boom
• Pilot Trash Catchers	L	$100-500/catcher
• Storm Drain Inlet Grates	L	$250-300/grate
• Manual Street Sweeping	M	$8-12/hr.
• Vacuum Sweeping	M	$125,000-225,000/sweeper
• Stormwater Management Facilities	H	$200,000-500,000/facility

1 Priority Level Abbreviations: L=Low; M=Medium; H=High
2 Note: Cost estimates do not reflect volunteer labor and/or maintenance costs.
3 Long Branch and Takoma Park Branch
N/A = No data due to highly variable nature of Plan Element/Activity

V. Envisioned Phased Plan Implementation Approach

A. Phased Approach

As previously stated, given the magnitude and complexity of the trash problem in Sligo Creek a long-term approach for its solution is required. Therefore, the Sligo Creek Trash Reduction Plan has been intentionally designed for implementation in two phases over a five-year period.

B. Phase I

Launched in November 1998, Phase I has involved extensive research, field surveys, analysis, networking, and strategic planning. It has also seen the convening of a Sligo Creek Trash Reduction Initiative Workshop attended by residents, businesses and local and state government representatives; publication of The Sligo Creek Trash Reduction Newsletter; the completion of a major Sligo Creek cleanup which featured both tree planting and an electrofishing demonstration; and the establishment of partnerships with both Blair High School and the Takoma Park Middle School. Remaining Phase I efforts will focus primarily on Long Branch and Takoma Park Branch tributaries and will culminate in a major cleanup event in early 2000. Phase I accomplishments include, but are not limited to:

- The establishment a working partnership with the Anacostia River Business Coalition (ARBC);
- Completion of both stream and roadside trash surveys in Sligo Creek;
- Identification of major watershed trash hot spots;
- Production and distribution of the Sligo Creek Trash Reduction Initiative Newsletter;
- The October 23, 1999 Sligo Creek cleanup and tree planting event;
- The November 18, 1999 Sligo Creek Trash Reduction Stewardship Meeting;
- Conducting research on Best Available Technologies (BAT) for trash reduction;
- Developing the Sligo Creek Trash Reduction Plan to serve as a possible prototype for the entire Anacostia tributary system; and
- The establishment of partnerships with two Sligo Creek public schools.

C. Phase I and II Recommended Implementation Time Line

The proposed five-year, Phase I and II Trash Reduction Time Line is included as Table 4. Additional time dependent recommendations, targeted problem areas and annual reassessment guidance are provided in the following remaining sections.

Recommendations:

- Establish a self-sustaining Sligo Creek watershed network with one or more individuals or groups leading efforts in each of the major tributaries within one year;
- Install a total of three kiosks along the Sligo Creek mainstem and Long Branch by year three;
- Purchase and install signs at key stream crossings over the next three years;

- Replace outdated illegal dumping signs at key locations within the next two years;
- Develop partnerships with all public schools in the Sligo Creek watershed as soon as possible;
- Ensure the adoption of all of Long Branch within the next two years;
- Conduct a major cleanup, with full media coverage, of Takoma Park Branch by the end of year two;
- Install all recommended BAT controls within the next two to five years; and
- By years three to five, achieve a dramatic reduction in the amount of trash entering Sligo Creek and its tributaries (i.e., a downward shift to either the Light or None/Light trash index levels).

Table 4. Summary: Proposed Phase I and II Trash Reduction Time Line

Key Trash Reduction Plan Elements/Activities	Year/Activity Level[1]				
	1	2	3	4	5
1. Form Permanent Sligo Creek Trash Reduction Stakeholders Committee	♦♦♦				
2. Biannual Stakeholders Meetings and Network Building	♦♦	♦♦	♦♦	♦♦	♦♦
3. Garner Political Support and Media Attention	♦♦	♦♦♦	♦		♦
4. Seek and Secure Funding for Trash Reduction Initiative	♦♦	♦♦♦	♦♦	♦♦	♦♦
5. Annual Watershed Trash Monitoring and Reporting	♦	♦	♦	♦	♦
6. Multi-Cultural Trash Reduction Activities	♦	♦♦	♦♦	♦♦	♦♦
7. Partnership Building w/ Schools, Businesses and Government	♦	♦♦	♦♦	♦	♦
8. Public Education, Pollution Prevention and Outreach	♦	♦♦♦	♦♦♦	♦♦	♦♦
9. Stream and Trash Signage	♦	♦	♦		
10. Adopt-A-Road:					
• New Hampshire Ave.		♦			
• Riggs Rd.			♦		
• Piney Branch Rd.				♦	
• Other					♦
11. Long Branch Stream Cleanup	♦♦				
12. Takoma Park Branch Stream Cleanup		♦♦			
13. Surveillance and Enforcement	♦♦	♦♦♦	♦♦♦	♦♦	♦♦
14. Park Use/Permit Review		♦			
15. BAT Implementation					
• Pilot Trash Booms[2]		♦	♦		
• Pilot Trash Catchers		♦	♦		
• Storm Drain Inlet Grates			♦	♦	
• Manual Street Sweeping	♦	♦♦♦	♦♦♦	♦♦♦	♦♦
• Vacuum Sweeping			♦♦♦	♦♦♦	♦♦
• Stormwater Management Facilities		♦♦	♦	♦	♦

1 Symbol Interpretations ♦=Low Level; ♦♦= Moderate Level; ♦♦♦= High Level
2 Long Branch and Takoma Park Branch

D. Targeted Problem Areas

Long Branch, one of Silver Spring's larger neighborhoods, encompasses only three square miles. For its small size, for its tremendous ethnic diversity, and for the fact that several dedicated residents have shown strong support for the Initiative, Long Branch can serve as an ideal testing ground for the trash reduction strategy. It is hoped that the Long Branch Neighborhood Initiative (LBNI), a coalition of civic associations, tenant organizations, and businesses, will be instrumental in organizing more frequent and coordinated trash surveys and cleanups. If initial efforts in Long Branch are successful, a similar model will be used in Takoma Park Branch.

E. Annual reassessment

As with any effective plan, the Sligo Creek Trash Reduction Initiative has as its foundation a flexible but well-defined set of goals and a realistic time frame for achieving them. Since the Initiative's inception in November,1998 its goals, and progress toward them, have been continually reevaluated. Biannual Stakeholder Committee meetings will help to ensure continued progress toward the long-term goal of a clean Sligo Creek. These will most likely be held in locations such as public libraries, schools, or community centers.

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Appendix 1. Table 1. Summary: COG Sligo Creek Trash Survey (Spring, 1998)

No.	Reach	Jurisdiction and ADC Map Location	Length (ft)	Date Surveyed	Total Items	Items per 100 ft	Top 3 Trash Items	Verbal Ranking
S-1	Channing Dr. to University Blvd: SWM Facility	MC: 36, J-1, K-1	2750	3/10	1267	46.1	1,4,2	Moderate
S-2	University Blvd. SWM Facility to University Blvd.	MC: 36, K-2	700	3/4	69	9.9	1,11,14	None - Very Light
S-3	Wheaton Branch/Sligo Creek Confluence to Forest Glen Rd.	MC: 36, K-5, K-6	1000	3/4	212	13.3	1,2,4	Light
S-4	I-495 to Confluence with Flora Lane Trib.	MC: 36, K-6	650	3/10	139	21.4	1,4,5	Light
S-5	Three Oaks Dr. to Wayne Ave.	MC: 37, C-8, C-9	1200	3/4	347	28.9	1,2,4	Moderate
S-6	Piney Branch Rd. To Hudson Ave.	MC: 37, D-9, D-10	1600	3/13	473	29.6	1,4,2	Moderate
S-7	Flower Ave to New Hampshire Ave.	MC: 37, F-12	1450	3/13	460	31.7	1,2,4	Moderate
S-8	Pepco Powerline to East-West Hwy.	PG: 6, G-13, H-13	1200	2/27	737	61.0	1,4,2	High
S-9	East-West Hwy. to Riggs Rd.	PG: 6, H-13; 11, H-13	1700	2/27	1057	60.0	1,4,2	High
S-10	Green Meadows Park Tennis Courts to NW Branch	PG: 11, H-2, H-3, J-3	3750	3/13	3197	85.3	1,4,2	High
WB-1 (Wheaton Branch)	University Blvd. To Pritchard Rd.	MC: 36, H-1, H-2	1400	3/13	724	51.7	1,2,4	High
WB-2 (Wheaton Branch)	Evans Pkwy. to Dennis Ave.	MC: 36, J-4	700	3/13	458	65.4	1,4,2	High
WB-3 (Wheaton Branch)	Inwood Ave. to Sligo Creek	MC: 36, K-4, K-5	1450	3/4	292	20.1	2,1,4	Moderate
FL-1 (Flora Lane Tributary)	Columbia Blvd. to Sligo Creek	MC: 36, K-6	1410	3/10	649	46.0	1,4,2	Moderate

No.	Reach	Jurisdiction and ADC Map Location	Length (ft)	Date Surveyed	Total Items	Items per 100 ft	Top 3 Trash Items	Verbal Ranking
TP-1 (Takoma Park Branch)	Fourth Ave. to New Hampshire Ave.	MC: 42, E-1	800	3/13	704	88.0	1,2,4	High
TP-2 (Takoma Park Branch)	Ray Rd. to Red Top Rd.	PG: 11, F-1, G-1	1200	2/27	1172	97.7	1,4,2	High
TP-3 (Takoma Park Branch)	Red top Rd. to Dayton Ave.	PG: 11, G-1	1400	3/13	1249	89.2	1,2,4	High
LB-1 (Long Branch)	Hamilton Ave. to E. Wayne Ave.	MC: 37, D-7, E-7, E-8	2550	3/13	580	22.7	1,4,6	Light
LB-2 (Long Branch)	Piney Branch Rd. to Bayfield St.	MC: 37, E-9	1000	3/13	507	12.2	3,1,4	Light
LB-3 (Long Branch)	Minter Pl. to Sligo Creek	MC: 37, F-12	1600	3/4	423	26.4	1,4,2	Moderate

1. Note: Trash items recorded within stream channel, only. **2. Jurisdictional Abbreviation:** MC=Montgomery County; PG=Prince George's County; DC=District of Columbia. **3. Trash Item Key:** 1 = Plastic bags; 2 = Plastic bottles; 3 = Glass; 4 = Aluminum Cans; 5 = Styrofoam cups, etc.; 6 = Paper, Cardboard, Cloth; 7 = Auto: Oil Qt Containers, Oil Filters, Air Filters; 8 = Car Batteries; 9 = Car Tires; 10 = Auto Body Parts; 11 = Construction Debris: Bricks, Concrete, Drywall, Lumber; 12 = Appliances; 13 = Wooden Pallets; 14 = Metal: Drums, Cans, Etc.; 15 = Miscellaneous. **4. General Verbal Ranking Interpretation:**

Number of Items per 100-ft	Verbal Ranking
0-10.0	None - Very Light
10.1-25.0	Light
25.1-50	Moderate
=>50.1	High

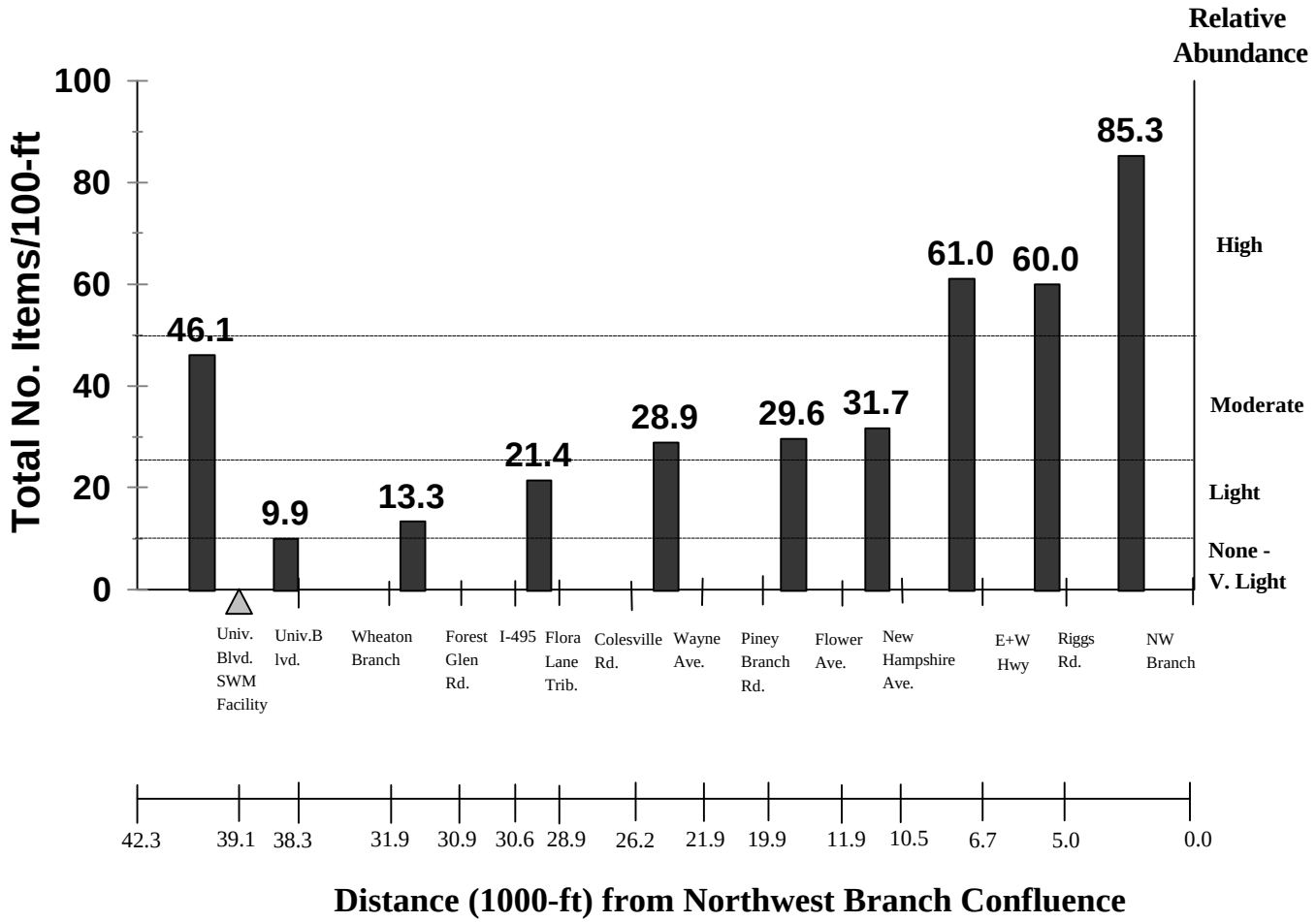
Appendix 1. Table 2. Summary: COG Sligo Creek Trash Survey (Spring, 1999)

No.	Reach	Jurisdiction and ADC Map Location	Length (ft)	Date Surveyed	Total Items	Items per 100 ft	Top 3 Trash Items	Verbal Ranking
S-1	Channing Dr. to University Blvd: SWM Facility	MC: 36, J-1, K-1	2750	4/20/99	1068	38.8	1,4,2	Moderate
S-2	University Blvd. SWM Facility to University Blvd.	MC: 36, K-2	700	4/20/99	40	5.7	1,2,4	Very Light
S-3	Wheaton Branch/Sligo Creek Confluence to Forest Glen Rd.	MC: 36, K-5, K-6	1000	4/23/99	118	11.8	1,5,2	Light
S-4	I-495 to Confluence with Flora Lane Trib.	MC: 36, K-6	650	4/23/99	116	17.9	1,2,5	Light
S-5	Three Oaks Dr. to Wayne Ave.	MC: 37, C-8, C-9	1200	4/23/99	277	23.1	1,5,2	Light
S-6	Piney Branch Rd. To Hudson Ave.	MC: 37, D-9, D-10	1600	4/23/99	432	27.0	1,5,4	Moderate
S-7	Flower Ave to New Hampshire Ave.	MC: 37, F-12	1450	4/27/99	422	29.1	1,5,2	Moderate
S-8	Pepco Powerline to East-West Hwy.	PG: 6, G-13, H-13	1200	4/28/99	824	68.7	1,2,5	High
S-9	East-West Hwy. to Riggs Rd.	PG: 6, H-13; 11, H-13	1700	4/1/99	471	84.1	1,2,5	High
S-10	Green Meadows Park Tennis Courts to NW Branch	PG: 11, H-2, H-3, J-3	3750	4/27/99	1594	42.5	1,2,4	Moderate
WB-1 (Wheaton Branch)	University Blvd. To Pritchard Rd.	MC: 36, H-1, H-2	1400	4/20/99	650	46.4	1,3,2	Moderate
WB-2 (Wheaton Branch)	Evans Pkwy. to Dennis Ave.	MC: 36, J-4	700	4/20/99	522	74.6	1,5,2	High
WB-3 (Wheaton Branch)	Inwood Ave. to Sligo Creek	MC: 36, K-4, K-5	1450	4/20/99	156	10.8	1,5,2	Light
FL-1 (Flora Lane Tributary)	Columbia Blvd. to Sligo Creek	MC: 36, K-6	1410	4/23/99	570	40.4	1,2,5	Moderate

No.	Reach	Jurisdiction and ADC Map Location	Length (ft)	Date Surveyed	Total Items	Items per 100 ft	Top 3 Trash Items	Verbal Ranking
TP-1 (Takoma Park Branch)	Fourth Ave. to New Hampshire Ave.	MC: 42, E-1	800	4/28/99	574	71.8	1,2,11	High
TP-2 (Takoma Park Branch)	Ray Rd. to Red Top Rd.	PG: 11, F-1, G-1	1200	4/28/99	1206	101.0	1,2,5	High
TP-3 (Takoma Park Branch)	Red top Rd. to Dayton Ave.	PG: 11, G-1	1400	4/28/99	1394	99.6	1,2,5	High
LB-1 (Long Branch)	Hamilton Ave. to E. Wayne Ave.	MC: 37, D-7, E-7, E-8	2550	4/22/99	204	8.0	2,1,6	Very Light
LB-2 (Long Branch)	Piney Branch Rd. to Bayfield St.	MC: 37, E-9	1000	4/22/99	398	39.8	1,3,6	Moderate
LB-3 (Long Branch)	Minter Pl. to Sligo Creek	MC: 37, F-12	1600	4/22/99	341	21.3	1,2,5	Light

1. Note: Trash items recorded within stream channel, only. **2. Jurisdictional Abbreviation:** MC=Montgomery County; PG=Prince George's County; DC=District of Columbia. **3. Trash Item Key:** 1 = Plastic bags; 2 = Plastic bottles; 3 = Glass; 4 = Aluminum Cans; 5 = Styrofoam cups, etc.; 6 = Paper, Cardboard, Cloth; 7 = Auto: Oil Qt Containers, Oil Filters, Air Filters; 8 = Car Batteries; 9 = Car Tires; 10 = Auto Body Parts; 11 = Construction Debris: Bricks, Concrete, Drywall, Lumber; 12 = Appliances; 13 = Wooden Pallets; 14 = Metal: Drums, Cans, Etc.; 15 = Miscellaneous. **4. General Verbal Ranking Interpretation:**

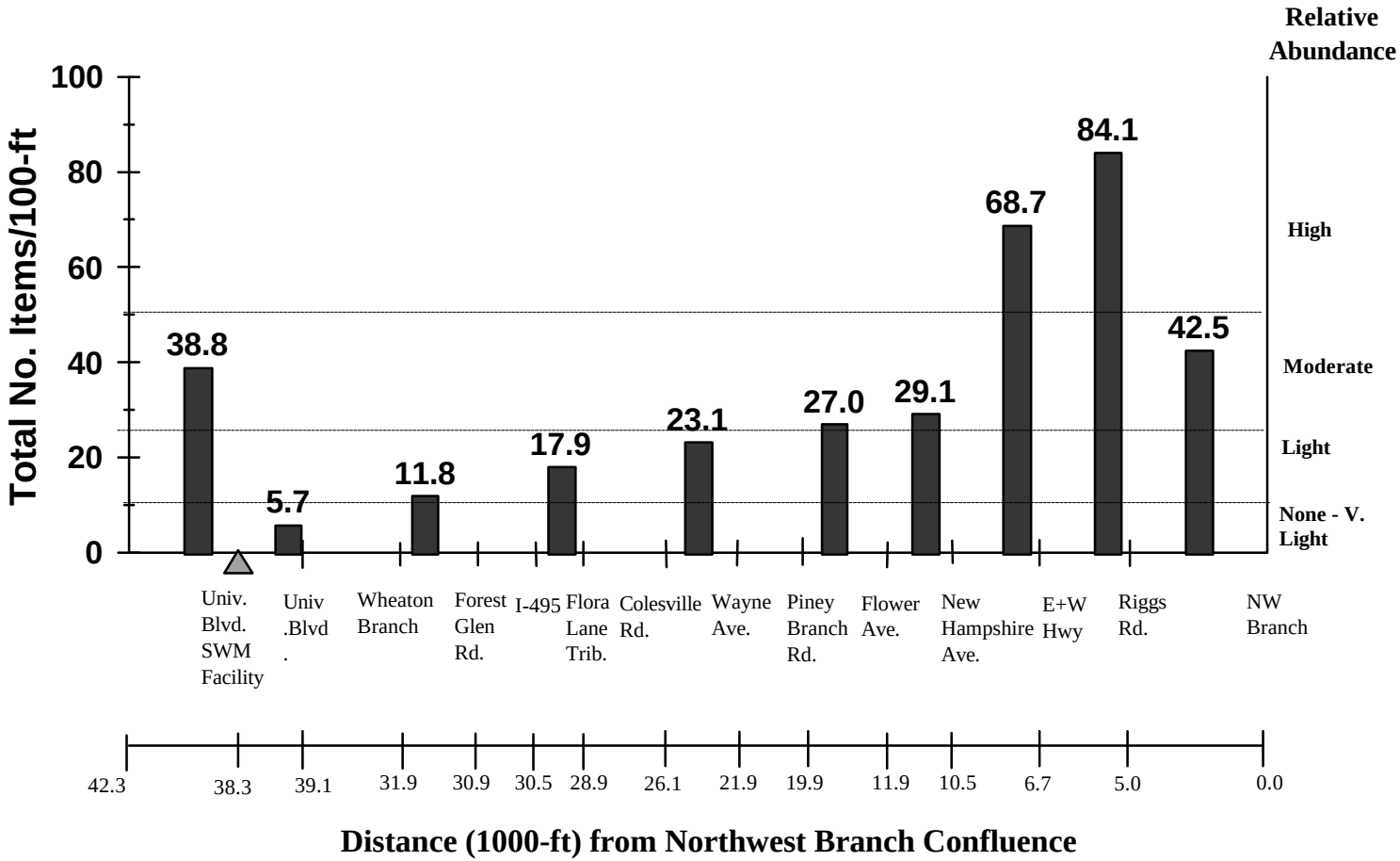
Number of Items per 100-ft	Verbal Ranking
0-10.0	None - Very Light
10.1-25.0	Light
25.1-50	Moderate
=>50.1	High



MWCOG Sligo Creek survey period: Feb. 27 - Mar. 13, 1998

Source: MWCOG, 1998

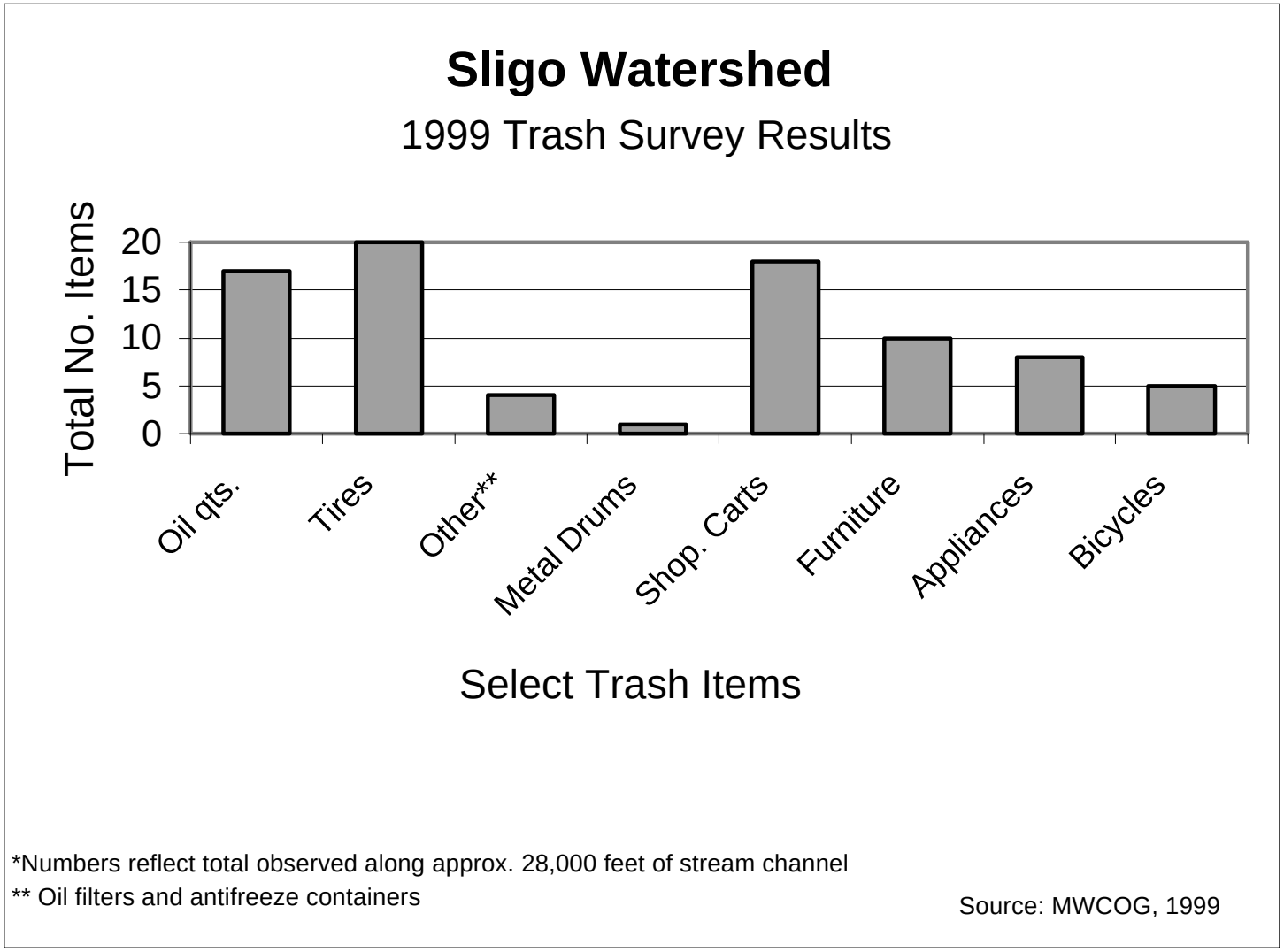
Appendix 1. Figure 1. 1998 Sligo Creek Trash Survey Downstream Trash Trend



MWCOG Sligo Creek survey period: April 1-May 6, 1999

Source:MWCOG, 1999

Appendix 1. Figure 2. 1999 Sligo Creek Trash Survey Downstream Trash Trend



Appendix 1. Figure 3. Select Trash Items, 1999 Sligo Creek Trash Survey

Appendix 2. Table 1. Summary: COG Sligo Creek Roadside Trash Survey[1] (August 11, 1999)

SURVEY SITE	ROAD SECTION	JURISDICTION AND ADC MAP LOCATION	APPROXIMATE SURVEY LENGTH (FT)	TOTAL ITEMS	ITEMS PER 100 FT	RELATIVE TRASH ABUNDANCE[2]	1997 AVERAGE DAILY TRAFFIC (ADT) VOLUME[3]	PART OF ADOPT-A-ROAD PROGRAM
1. University Boulevard	Warwick Apartments to the vicinity of Rocky Mount Lane	MC:K-2	1,600	696	43.5	Moderate	31,075	No
2. Dennis Avenue	Dennis Court to Sligo Middle School Sign	MC:K-4	1,600	516	32.3	Moderate	9,000	No
3. Sligo Creek Pkwy	Dallas Avenue to Colesville Road	PG:6, A-7,A-8	1,600	218	13.6	Light	10,200	No
4. Colesville Road	Dale Drive to Franklin Drive	PG:6,B-7	1,600	627	39.2	Moderate	45,175	No
5. Sligo Creek Pkwy	Wayne Avenue to Piney Branch Road	PG:6,D-9	1,600	374	23.4	Light	7,200	No
6. Piney Branch Road	Park Crest to Manchester Road	PG:6,D-9	1,600	1,284	80.3	High	23,650	No
7. New Hampshire Avenue	Linden Avenue to Takoma Community Center	PG:6,G-12	1,600	1,903	118.9	High	42,925	No
8. Riggs Road	Norton Road to Amherst Road	PG:11,H-1	1,600	1,727	107.9	High	34,925	No
Total			12,800	7,345	60.15			

1. Survey conducted at both Sligo Creek road crossings and along Sligo Creek Parkway. Approximately, 1600-foot long road sections were employed.
2. General Interpretation: High = >50.1, Moderate = 25.1-50, Light = 10.1-25.0, None - Very light = 0-10.0.
3. Source:MSHA,1997.Note,Sligo Creek Parkway ADT's are from Montgomery County, 1990.

Appendix 3. Table 1. Montgomery County Elected Officials

County Executive	
Name	**Address**
Honorable Douglas Duncan Phone: 240-777-2500 E-mail: douglas.duncan@co.mo.md.us	Executive Office Building 101 Monroe Street Rockville, Maryland 20850

County Council		
Name	**Address**	**Committee**
Honorable Marilyn Praisner Phone: 240-777-7968. E-mail: m.praisner@co.mo.md.us	District 4 100 Maryland Avenue Rockville, Maryland 20850	• Management and Fiscal Policy Committee • Health and Human Services Committee
Honorable Derick Berlage Phone: 240-777-7967 Fax: 240-777-7989 E-mail: berlage@co.mo.md.us	District 5 100 Maryland Ave Rockville, Maryland 20850	• Planning, Housing and Economic Development Committee • Transportation and Environment Committee
Honorable Steve Silverman Phone: 301-217-7960 E-mail: steven.silverman@co.mo.md.us	District 5 100 Maryland Avenue Rockville, Maryland 20850	• Planning, Housing and Economic Development Committee • Health and Human Services Committee

State Senate and House Delegates (Legislative Districts)	
Name	**Address**
DISTRICT 18	
Senator Christopher Van Hollen Phone: 301- 942-8581, 301- 858-3137 Annapolis Phone: 410- 841-3137 E-mail: christopher_vanhollen@senate.state.md.us	3514 Farragut Avenue Kensington, Maryland 20895-2132 James Senate Office Building, Room 304 110 College Avenue Annapolis, Maryland 21401-1991
Delegate Leon G. Billings Phone: 301- 946-5916 Annapolis Phone: 301- 858-3028, 410- 841-3028	10007 Kensington Parkway Kensington, Maryland 20895 Lowe House Office Building, Room 223 84 College Avenue Annapolis, Maryland 21401-1991
Delegate Sharon M. Grosfeld Phone: 301-946-1003 Annapolis Phone: 301- 858-3028, 410- 841-3028 E-mail: sharon_grosfeld@house.state.md.us	9906 Old Spring Road Kensington, Maryland 20895 Lowe House Office Building, Room 223 84 College Avenue Annapolis, Maryland 21401-1991
Delegate John Adams Hurson Phone: 301- 858-3464, 410- 841-3464 E-mail: jhurson@aol.com	Lowe House Office Building, Room 313 84 College Avenue Annapolis, Maryland 21401-1991

DISTRICT 19	
Senator Leonard H. Teitelbaum Phone: 301- 593-7309, 301- 858-3151 Annapolis Phone: 410- 841-3151 E-mail: leonard_teitelbaum@senate.state.md.us	11805 Auth Lane Silver Spring, Maryland 20902 James Senate Office Building, Room 205 110 College Avenue Annapolis, Maryland 21401 –1991
Delegate Henry B. Heller Phone: 301-949-4265 Annapolis Phone: 301-858-3528, 410-841-3528 E-mail: henry_heller@house.state.md.us	Turkey Branch Parkway Rockville, Maryland 20853 Lowe House Office Building, Room 429 84 College Avenue Annapolis, Maryland 21401-1991
Delegate Adrienne A. Mandel Phone: 301- 460-0295 Annapolis Phone: 301-8583045, 410- 841-3045 E-mail: adrienne_mandel@house.state.md.us	13816 North Gate Drive Silver Spring, Maryland 20906 Lowe House Office Building, Room 220 84 College Avenue Annapolis, Maryland 21401-1991
Delegate Carol S. Petzold Phone: 301- 871-7413 Annapolis Phone: 301- 858-3001, 410- 841-3001 E-mail: carol_stoker_petzold@house.state.md.us	14113 Chadwick Lane Rockville, Maryland 20853 Lowe House Office Building, Room 222 84 College Avenue Annapolis, Maryland 21401-1991
DISTRICT 20	
Senator Ida G. Ruben Phone: 301- 439-2332 Annapolis Phone: 301- 858-3634, 410-841-3634	11 Schindler Court Silver Spring, Maryland 20903 James Senate Office Building, Room 100 110 College Avenue Annapolis, Maryland 21401-1991
Delegate Dana Lee Dembrow Phone: 301-890-0225 Phone: 301- 858-3052 410- 841-3052 E-mail: Dana_dembrow@house.state.md.us	2917 Schubert Drive Silver Spring, MD 20904-6893 Lowe House Office Building, Room 219 84 College Avenue Annapolis, Maryland 21401-1991
Delegate Peter Franchot Phone: 301- 270-4001 Phone: 301- 858-3460 410- 841-3460	7111 Sycamore Avenue Takoma Park, Maryland 20912 Lowe House Office Building, Room 424 84 College Avenue Annapolis, Maryland 21401-1991
Delegate Sheila E. Hixson Phone: 301- 858-3469, 410- 841-3469 E-mail: sheila_hixson@house.state.md.us	Lowe House Office Building, Room 100 84 College Avenue Annapolis, Maryland 21401-1991

Appendix 3. Table 2. Prince George's County Elected Officials

County Executive	
Name	**Address**
Honorable Wayne K. Curry Phone: 301-952-5262 Web: www.co.pg.md.us/countexe.html	Administration Building 14741 Governor Oden Bowie Drive Upper Marlboro, Maryland 20772-3050

County Council		
Name	**Address**	**Committee**
Honorable Peter A. Shapiro Phone: 301-952-3820 Phone: 301-952-7200 Fax: 301-952-3238	District 2 County Administration Building (Room 2027) 14741 Gov. Oden Bowie Dr. Upper Marlboro, Maryland 20772-3050	• Planning, Zoning and Economic Development Committee • Transportation, Housing and the Environment Committee • Rules and General Assembly committee

State Senate and House Delegates (Legislative Districts)	
Name	**Address**
DISTRICT 21	
Senator Arthur Dorman Phone: 301-858-3141 Phone: 410-841-3141	116 Presidential Wing James Senate Office Building 110 College Avenue Annapolis, Maryland 21401-1991
Delegate Barbara A. Frush Phone: 301-858-3114 Phone: 410-841-3114 E-mail: barbara_frush@house.state.md.us	Lowe House Office Building, Room 201 84 College Avenue Annapolis, Maryland 21401-1991
Delegate Pauline H. Menes Phone: 301-858-3114 Phone: 410-841-3114 E-mail: pauline_menes@house.state.md.us	Lowe House Office Building, Room 201 84 College Avenue Annapolis, Maryland 21401-1991
Delegate Brian R. Moe Phone: 301-858-3114 Phone: 410-841-3114 E-mail: brian_moe@house.state.md.us	Lowe House Office Building, Room 201 84 College Avenue Annapolis, Maryland 21401-1991
DISTRICT 22	
Senator Paul G. Pinsky Phone: 301-858-3155 Phone: 410-841-3155 E-mail: paul_pinsky@senate.state.md.us	James Senate Office Building, Room 303 110 College Avenue Annapolis, Maryland 21401-1991
Delegate Anne Healey Phone: 301-858-3058 Phone: 410-841-3058 E-mail: anne_healey@house.state.md.us	Lowe House Office Building Room 201 84 College Avenue Annapolis, Maryland 21401-1991
Delegate Richard A. Palumbo Phone: 301-858-3058 Phone: 410-841-3058	Lowe House Office Building Room 201 84 College Avenue Annapolis, Maryland 21401-1991

DISTRICT 22	
Delegate Rushern L. Baker III Phone: 301-858-3058 Phone: 410-841-3058 E-mail: rushern_baker@house.state.md.us	Lowe House Office Building, Room 201 84 College Avenue Annapolis, Maryland 21401-1991

Appendix 3. Table 3. Montgomery County Agencies

Maryland-National Capital Park and Planning Commission-M-NCPPC (www.mncppc.org/)	
Name	**Address**
Planning Board Members	
William H. Hussmann, Chairman Phone: 301-495-4605 Fax: 310-495-1320	Montgomery County Regional Office Building 8787 Georgia Avenue Silver Spring, Maryland 20910
Arthur Holmes, Jr., Vice Chairman Phone: 301-495-4605 Fax: 310-495-1320	Montgomery County Regional Office Building 8787 Georgia Avenue Silver Spring, Maryland 20910
Allison Bryant, Commissioner Phone: 301-495-4605 Fax: 310-495-1320	Montgomery County Regional Office Building 8787 Georgia Avenue Silver Spring, Maryland 20910
Wendy C. Perdue, Commissioner Phone: 301-495-4605 Fax: 310-495-1320	Montgomery County Regional Office Building 8787 Georgia Avenue Silver Spring, Maryland 20910
Meredith M. Wellington, Commissioner Phone: 301-495-4605 Fax: 310-495-1320	Montgomery County Regional Office Building 8787 Georgia Avenue Silver Spring, Maryland 20910
Department of Park and Planning	
Charles Loehr, Director Department of Park and Planning Phone: 301-495-4500 Fax: 301-495-1310	Montgomery County Regional Office Building 8787 Georgia Avenue Silver Spring, Maryland 20910
Jeff Zyontz, Acting Chief Countywide Planning Division Phone: 301-495-4557 Fax: 310-495-1303	Montgomery County Regional Office Building 8787 Georgia Avenue Silver Spring, Maryland 20910
Ken Ernst, Chief Natural Resources Division Phone: 301-650-2600 Fax: 301-587-6151	Meadowbrook Maintenance Facility 8000 Meadowbrook Lane Chevy Chase, Maryland 20815
Terry Brooks, Chief Park Planning and Development Phone: 301-495-2535 Fax: 301-585-1921 E-mail:	Parkside Headquarters Montgomery County Parks 9500 Brunett Avenue Silver Spring, Maryland 20901
Donald K. Cochran, Director of Parks Montgomery County Park Operations Phone: 301-495-2500 Fax: 301-495-9340 E-mail:	Parkside Headquarters Montgomery County Parks 9500 Brunett Avenue Silver Spring, Maryland 20901
Elizabeth Kreiter, Chief Park Police Division Phone: 301-929-2700 Fax: 301-929-1842	Montgomery County Park Police Saddlebrook Headquarters 12751 Layhill Road Wheaton, Maryland 20901

Department of Environmental Protection-DEP	
(www.co.mo.md.us/services/dep)	
James A. Caldwell, Director Phone: 240-777-7700 Fax: 240-777-7765 E-mail: jim.caldwell@co.mo.md.us	255 Rockville Pike, Suite 120, Rockville, Maryland 20850
Cameron Wiegand, Division Chief Phone: 240-777-7736 Fax: 240-777-7715 E-mail: cameron.wiegand@co.mo.md.us	Watershed Management Division 255 Rockville Pike, Suite 120, Rockville, Maryland 20850
Keith Van Ness, Sr. Water Quality Specialist Phone: 240-777-7707 Fax: 240-777-7715 E-mail: keith.vanness@co.mo.md.us	Watershed Management Division 255 Rockville Pike, Suite 120, Rockville, Maryland 20850
Ellen Scavia, Chief Phone: 240-777-77048 Fax: 240-777-7752 E-mail: ellen.scavia@co.mo.md.us	Environmental Policy and Compliance 255 Rockville Pike, Suite 120, Rockville, Maryland 20850
David E. Rotolone Phone: 240-777-7753 Fax: 240-777-7752	Environmental Enforcement and Assistance 255 Rockville Pike, Suite 120, Rockville, Maryland 20850
Department of Permitting Services	
(www.co.mo.md.us/services/permitting/dps1.html)	
Name	**Address**
Robert Hubbard, Director Phone: 240-777-6360 E-mail: dps@co.mo.md.us	250 Hungerford Drive, 2nd Floor Rockville, Maryland 20850
Richard Brush, Manager Phone: 301-217-6343 Fax: 301-217-6318 E-mail: Rick.Brush@co.mo.md.us	255 Rockville Pike 2nd Floor Rockville, Maryland 20850-4153
Erosion and Sediment Control Complaint Phone: 240-777-6260	250 Hungerford Drive, 2nd Floor Rockville, Maryland 20850
Stormwater Management Phone: 240-777-6320	250 Hungerford Drive, 2nd Floor Rockville, Maryland 20850

Appendix 3. Table 4. Prince George's County Agencies

Prince George's County - Maryland-National Capital Park and Planning Commission M-NCPPC (www.mncppc.org/)	
Name	**Address**
Planning Board Members	
Honorable Elizabeth M. Hewlett, Chairman Phone: 301-952-3560 Fax: 301-952-5074 TTY: 301-495-1331	County Administration Building 14741 Governor Oden Bowie Drive Upper Marlboro, Maryland 20772-3043
Honorable Zola E. Boone, Commissioner Phone: 301-952-3560 Phone: 301-952-3560 Fax: 301-952-5074 TTY: 301-495-1331	County Administration Building 14741 Governor Oden Bowie Drive Upper Marlboro, Maryland 20772-3043
Honorable James M. Brown, Commissioner Phone: 301-952-3560 Phone: 301-952-3560 Fax: 301-952-5074 TTY: 301-495-1331	County Administration Building 14741 Governor Oden Bowie Drive Upper Marlboro, Maryland 20772-3043
Honorable Regina J. McNeill, Commissioner Phone: 301-952-3560 Phone: 301-952-3560 Fax: 301-952-5074 TTY: 301-495-1331	County Administration Building 14741 Governor Oden Bowie Drive Upper Marlboro, Maryland 20772-3043
Department of Planning	
Fern V. Piret, Director Phone: 301-952-3595 Fax: 301-952-5804	County Administration Building 14741 Governor Oden Bowie Drive Upper Marlboro, Maryland 20772-3043
Nick Motta, Chief Phone: 301-952-3253 Fax: 301-952-3799 E-mail: nmotta@mncppc.state.md.us	Natural Resources Division County Administration Building 14741 Governor Oden Bowie Drive Upper Marlboro, Maryland 20772-3043
Yvonne Magee, Chief Phone: 301-952-3569 Fax: 301-952-3612	Neighborhood Revitalization Division County Administration Building 14741 Governor Oden Bowie Drive Upper Marlboro, Maryland 20772-3043
Department of Parks and Recreation	
Mary H. Godfrey, Director Phone: 301-699-2582 TTY: 301-699-2544 Fax: 301-864-6941	Department of Parks and Recreation Administration Building 6000 Kenilworth Avenue Riverdale, Maryland 20737
Captain Larry M. Brownlee, Div. Chief Phone: 301-429-5620 TTY: 301-459-5475 Fax: 301-577-2498	Park Police Division Prince George's County Park Police 6700 Riverdale Road Riverdale, Maryland 20737

Prince George's County Department of Environmental Resources	
Name	**Address**
Samuel Wynkoop, Director Phone: 301-883-5813 Fax: 301-883-5785	Inglewood Center #3 500 9400 Peppercorn PL Largo Maryland 20774-5359
Larry Coffman, Associate Director Phone: 301-883-5839 Fax: 301-883-9218 E-mail: coffman@yso.net	Program and Planning 610 9400 Peppercorn PL, 6th FL. Largo Maryland 20774-5359
Waste Management Division Phone: 301-883-5848	9400 Peppercorn Pl., Largo Maryland 20774-5359
Programs and Planning Division Phone: 301-883-5924	9400 Peppercorn Pl., Largo Maryland 20774-5359
Permit and Review Phone: 301-883-5784	9400 Peppercorn Pl., Largo Maryland 20774-5359

Appendix 3. Table 5. Contact Information for AWRC Members, Stream Protection Programs and Interested Parties

AWRC Contacts	
Name	**Address**
James Collier, Program Manager Water Quality Division Phone: 202-535-1660	District of Columbia, Environmental Health Administration 51 N Street, NE, 2nd Floor Washington, D.C. 20002 www.dchealth.com
Jerry Johnson, General Manager Phone: 202-787-2012 Fax: 202-787-2229	District of Columbia, Water and Sewer Authority 5000 Overlook Ave., SW Washington, D.C. 20032-5212 www.dcwasa.com/
Frank Dawson, Chief of Watershed Restoration Phone: 410-260-8810 Fax: 410-260-8779	DNR-Chesapeake & Coastal Watershed Services Tawes State Office Bldg. E-2 580 Taylor Ave Annapolis, Maryland 21401-2352
George Harman, Manager Phone: 410-631-3856 Fax: 410-631-3998	MDE-Environmental Program 2500 Broening Highway Baltimore, Maryland 21224-6617
Cameron Wiegand, Chief Phone: 240-777-7736 Fax: 240-777-7765	Mont. County DEP Watershed Management Division 255 Rockville Pike Suite 120 Rockville, Maryland 20850
Larry Coffman, Associate Director Phone: 301-883-5839 Fax: 301-883-9218	Prince George's County DER-Program and Planning 9400 Peppercorn Pl., 6th FL. Largo, Maryland 20774-5359
Bob Lindner, Chief Phone: 410-962-4900 Fax: 410-962-4698	US Army Corps of Engineers Planning Division PO Box 1715 Baltimore, Maryland 21203-1715
Diana Esher Phone: 215-814-2706 Fax: 215-814-2201	US EPA Region III Chesapeake Bay Program Office Suite 300 1650 Arch Street Philadelphia, PA 19103-2090
John Galli, Principal Engineer Phone: 202-692-3348 Fax: 202-962-3201 E-mail: jgalli@mwcog.org	Metropolitan Washington Council of Governments Department of Environmental Programs 777 North Capitol Street NE Washington, DC 20002
Robert L. Bolle, Executive Director Phone: 301-984-1908 Fax: 301-984-5841	Interstate Commission of the Potomac River Basin Suite 300 6110 Executive Boulevard Rockville, Maryland 20852-3903
John Hale, Superintendent Phone: 202-690-5185 Fax: 202-690-5214 E-mail: John_Hale@nps.gov	Department of The Interior- National Park Service National Capital Parks, East 1900 Anacostia Drive SE Washington, DC 20020-6722
John Hench, Supervisor Phone: 301-650- 4370 Fax: 301-495-4731	Maryland-National Capital Park and Planning Commission, Natural Resources Management Unit 1109 Spring Street Silver Spring, Maryland 20910
Vanessa Dale Burns, Director Phone: 202-727-1000 http://www.ci.washington.dc.us/	District of Columbia, Dept. of Public Works 2000 14th Street NW Washington, D.C. 20009

Stream Protection Programs	
Claudia Donegan, Stream Striders Program Coordinator Phone: 301-650-4367 Fax: 301-650-4371 E-mail: donegan@mncppc.state.md.us	Maryland-National Capital Park and Planning Commission 1109 Spring Street Silver Spring, Maryland 20910
Diane Davis, Montgomery County Stream Teams Coordinator Phone: 240-777-7714 Fax: 240-777-7765 E-mail: diane.davis@co.mo.md.us	Montgomery County DEP 255 Rockville Pike Suite 120 Rockville, Maryland 20850
Sharon Meigs, Prince George's County Stream Teams Coordinator Phone: 301-883-5898 E-mail: meigssl@lgcfs003.co.pg.md.us	Prince George's County DER 9400 Peppercorn Pl, 6th FL. Largo, Maryland 20774-5359
Other Interested Parties	
Pete Boettinger, Park Manager, MNCPPC Parks Phone: 301-650-2628 Fax: 301-587-6151	Meadowbrook Maintenance Facility 8000 Meadowbrook Lane Chevy Chase, MD 20815
Mary Jean Brady, Washington Gas Phone: 703-750-5558 Fax: 703-750-5591	Anacostia River Business Coalition 6801 Industrial Rd Springfield, VA 22151
Leonard Archanbeault, Park Maintenance Manager, M-NCPPC Parks (Prince George's County) Phone: 301-918-4700	Northern Area Maintenance, Glenridge Service Center 4800 Veteran's Parkway Hyattsville, MD 20784

Appendix 3. Table 6. Environmental, Community Groups, and Civic Associations

Sligo Creek (Montgomery County)	
Name	**Address**
David Paglin, President Phone: 301-681-7443 E-mail: dpaglin@gmu.edu Web: www.gmu.edu/bios/anacosti/sligo/ Index.htm	Friends of Sligo Creek 205 NW Terrace Silver Spring, Maryland 20901
Albert Gruber, Secretary/Treasurer Phone: 301-949-7148	Wheaton Forest Civic Center Association 2105 Reedie Drive Silver Spring, Maryland 20902
Andrew Stone, Property Manager c/o Zalco Realty Phone: 301-495-6600	Stonehedge Homeowners Association 8701 Georgia Avenue, #300 Silver Spring, Maryland 20910
Jack Komisar, President Phone: 301-946-1218	Arcola Woods Community Association 12031 Eaglewood Court Wheaton, Maryland 20902
Arlene Luskin, Contact Phone: 301-593-4411	South Four Corners Citizens Association 606 Forest Glen Road Silver Spring, Maryland 20901
Bill Kules, President Phone: 301-270-4325	B.F. Gilbert Citizens Association 7006 Poplar Avenue Takoma Park, Maryland 20912
Cecelia Sepp, President Phone: 301-588-3783	Woodside Mews Homeowners Association 2023 Lyttonsville Road Silver Spring, Maryland 20910
Connie Schantz, Newsletter Editor Phone: 301-587-2116	Sligo Park Hills Citizens Association and Garden Club 24 Wessex Street Silver Spring, Maryland 20910
Dale Tibbitts, President Phone: 301-587-9358; 202-789-2000 (O)	North Hills Sligo Creek Civic Association 9511 Saint Andrews Way Silver Spring, Maryland 20901
Daniel Edelstein, President Phone: 301-445-0374	Long Branch Civic Association 501 East Schuyler Road Silver Spring, Maryland 20901
David Freed, President Phone: Unlisted	Carroll Ridge Neighborhood Assoc. 1539 Red Oak Drive Silver Spring, Maryland 20910
Frank Andruzzi, President Phone: 301-593-8527	Sligo Woods Civic Association 910 Helena Drive, Woodmoor Station Silver Spring, Maryland 20901
Jim Benfield, Co-chair Phone: 301-588-7446; 202-783-5594 (W) Lorraine Pearsall, Co-Chair Phone: 301-585-8062; 202-833-8077 (W)	North Takoma Citizens Association 519 New York Avenue Takoma Park, Maryland 20912 7708 Takoma Avenue Takoma Park, Maryland 20912
Jack Bonsby, President Association Phone: 301-592-0558	South Four Corners Citizens 9825 Dallas Avenue Silver Spring, Maryland 20901
Robert Colvin, President Association Phone: 301-585-8326	East Silver Spring Citizens 841 Gist Avenue Silver Spring, Maryland 20910

Sligo Creek (Montgomery County)	
Name	**Address**
John Cotton, President Association Phone: 301-445-2623	Montgomery Knolls Community 9130 September Lane Silver Spring, Maryland 20901
John Diamante, Acting President Phone: 301-681-5317	Forest Grove Citizens Association 1614 Sherwood Road Silver Spring, Maryland 20902
Marian Fryer, President Phone: 301-942-7663	Wheaton Citizens Coalition 11221 Rose Lane Wheaton, Maryland 20902
Mark Gallant, President Phone: 301-593-2979	Woodside Homeowners Association 10311 Green Holly Terrace Silver Spring, Maryland 20902
Larry Gaffigan, Manager Gaffigan Management Corporation Phone: 301-598-5000	Beacon Place Community Association Suite 410 11501 Georgia Avenue Silver Spring, Maryland 20902
Earl Ginyard, Building Manager Phone: 301-587-6600	Parkside Plaza Condominium Association 9039 Sligo Creek Parkway Silver Spring, Maryland 20901
Wayne Hall, President Phone: 301-587-0871	Between the Creeks Neighborhood Association 8407 Garland Avenue Silver Spring, Maryland 20912
Steve Jalbert, President Phone: 301-588-3743	Sligo-Branview Community Association 415 East Wayne Avenue Silver Spring, Maryland 20901
Julie Jordan, President Phone: None listed	Forest Estates Community Association PO 1351 Silver Spring, Maryland 20915
Margo Kelly, President Phone: 301-587-4190	Forest Glen Citizens Association 2112 Coleridge Drive Silver Spring, Maryland 20910
Tom King, Contact Phone: 301-681-5159	Forest Estates Citizens Association 1824 Brisbane Court Wheaton, Maryland 20902
Laurie Lester, President Association Phone: 301-270-0853	Long Branch-Sligo Citizens 7218 Garland Avenue Takoma Park, Maryland 20912
Shirley Lynne, President Phone: 301-949-6583	Wheaton Forest Civic Association 2014 Glenhaven Place Wheaton, Maryland 20902
Laurel McFarland, President Phone: 301-565-3116	Woodside Forest Citizens Association 1702 Corwin Drive Silver Spring, Maryland 20910
Pat McPherson, President Phone: 301-589-4989	Blair Community Association 724 Chesapeake Avenue Silver Spring, Maryland 20910

Sligo Creek (Montgomery County)	
Name	**Address**
Thomas Natan, President Phone: 301-589-8464	Forest Glen Park Citizens Association 2970 Forsythe Avenue Silver Spring, Maryland 20910
Julius Oppenheim, President Phone: 301-649-6635	University Towers Condominium Association 1121 University Boulevard W #904 Silver Spring, Maryland 20902
Sherrie Padmore, c/o Don Godfrey, CMI Phone: 301-587-0900	Tiers of Silver Spring Condominium 8720 Georgia Avenue Silver Spring, Maryland 20910
Loraine Pearsall, President Phone: 301-585-8062 Phone: 301-270-1700 x662	Historic Takoma, Inc. PO Box 5781 Takoma Park, Maryland 20912
Peter Perry, President Phone: 301-587-2250	Seven Oaks-Evanswood Citizen Association 713 Woodside Parkway Silver Spring, Maryland 20910
President Phone: None listed	Pineway Towers Condominium 8830 Piney Branch Road #1201 Silver Spring, Maryland 20903
Helen Rea, Coordinator Phone: 301-587-7478	Sligo Park Hills Citizens Association and Garden Club 6 Sussex Road Silver Spring, Maryland 20910
Joan Rubin, President Phone: 301-933-6931	Wheaton Regional Park Neighborhood Association 2011 Hermitage Avenue Wheaton, Maryland 20902
Marilyn Seitz, President Phone: 301-589-0728	Woodside Park Civic Association 1317 Woodside Parkway Silver Spring, Maryland 20910
David Souders, President Phone: 301-588-4054	Woodside Civic Association 8708 - 2nd Avenue Silver Spring, Maryland 20910
Lana Walker, President Phone: 301-589-9348	Georgian Towers Tenants Association 8715 1st Avenue Apartment 1113 C Silver Spring, Maryland 20910
Sligo Creek (Prince George's County)	
Sligo Creek	
Name	**Address**
Sally Taber, President Phone: 301-270-0131	South of Sligo Citizens Association (S0SCA) 703 Auburn Avenue Takoma Park, Maryland 20912

Watershed-Wide	
Name	**Address**
Fran Flanigan, Executive Director Phone: 410-377-6270 Fax: 410-377-7144 E-mail: mail@acb-online.org Web: www.acb-online.org/	Alliance for the Chesapeake Bay Maryland Office 6600 York Road Baltimore, Maryland 21212
Robert Boone, President Phone: 301-699-6204 Fax: 301-699-3317 E-mail: robert_boone@anacostiaws.org Web: www.anacostiaws.org/	Anacostia Watershed Society 4302 Baltimore Avenue Bladensburg, Maryland 20710-1031
Neal Fitzpatrick, Conservation Director Phone: 301-652-9188 Fax: 301-951-7179 Web: www.audubonnaturalist.org/	Audubon Naturalist Society 8940 Jones Mill Rd Chevy Chase, Maryland 20815-4700
William Baker, President Phone: 410-268-8816 Fax: 410-268-6687 E-mail: chesapeake@savethebay.cgf.org Web: www.savethebay.cbf.org/	Chesapeake Bay Foundation 162 Prince George Street Annapolis, Maryland 21401
David Minges, Director Phone: 410-974-2941 Fax: 410-269-0387 E-mail: cbt@ari.net Web: www.ari.net/home/cbt	Chesapeake Bay Trust 60 West Street, Suite 200A Annapolis, Maryland 21401
John Brunner Phone: 301-883-5843	Citizens Concerned for a Cleaner Prince George's County 9400 Peppercorn Place, Room 520 Largo, Maryland 20774
Andy Fellows, Chair Phone: 301-277-6349	Committee for a Better Environment 7207 Dartmouth, Avenue College Park, Maryland 20740
Robert Huddleston, President Phone: 410-734-7608 E-mail: members@iwla.org Web: www.iwla.org/chapters/ch_md.html	Izaak Walton League of America Maryland Division 301 Glenville Road Churchville, Maryland 21028
Debbra Ward Phone: 800-448-5826 or 410-696-0084 Fax: 410-969-0135 E-mail: info@saveourstreams.org	Save Our Streams 258 Scotts Manor Drive Glen Burnie, Maryland 21061 Web: www.saveourstreams.org/
Gwyn Jones Phone: 202-488-0505 E-mail: GwynJones@aol.com	Sierra Club, DC Chapter 709 3rd St. SW Washington, DC 20024-3103 Web: www.sierraclub.org/chapters/dc
Christopher B. Bedford, Chair Phone: 301-779-1000 Fax: 301-779-1001 E-mail: Maryland.chapter@sfsierra.sierraclub	Sierra Club Maryland Chapter #7338 Baltimore Avenue (Suite 1A) College Park, Maryland 20740 Web: www.sierraclub.org/chapters/md

Watershed-Wide	
Name	**Address**
Mathew Logan, Executive Director Phone: 202-338-4700 Fax: 202-338-3636 E-mail: comments@potomac.org	The Potomac Conservancy Post Office Box 25418 Washington, D.C. 20007 Web: www.potomac.org/
Paul Nahay, President E-mail: Paul@TrashForce.org	The Trash Force Web: www.home.spryney.com/sprynet /pnahay/tforce.htm
Reginald Adams, Eagle Corps Director Phone: 202-554-1960 Fax: 202-554-2060 E-mail: rmdavis@earthconcorps.org	Earth Conservation Corps 1st Street and Potomac Avenue, SE Washington, DC 20003

Appendix 3. Table 7. Public and Private Schools in Sligo Creek Watershed

Public Elementary Schools	
Principal: Robert Hatchel Principal: Frank Kaplan Phone: 301 650-6420 Web: www4.mcps.k12.md.us/schools/eastsilverspringes/	East Silver Spring Elementary School 631 Silver Spring Avenue Silver Spring, Maryland 20910
Principal: Carolyne E. Starek Phone: 301-649-8060 Web: www.mcps.k12.md.us/schools/forestknollses/	Forest Knolls Elementary School 10830 Eastwood Avenue Silver Spring, Maryland 20901
Principal: Dr. Jevoner Lake Adams Phone: 301 649-8051 Web: www4.mcps.k12.md.us/schools/glenhavenes/	Glen Havens Elementary School 10900 Inwood Avenue Silver Spring, Maryland 20902
Principal: Rosie M. Ramirez Phone: 301-929-2040 Fax: 301-929-2042 Web: www3.mcps.k12.Maryland.us/schools/highlandes/	Highland View Elementary School 3100 Medway Street Silver Spring, Maryland 20902
Principal: Joanne Busalacchi Phone: Phone: 301 650-6434 Web: www.mcps.k12.Maryland.us/schools/oakviewes/	Oakview Elementary School 400 E. Wayne Silver Spring, Maryland 20901
Thomas Pumphrey, Principal Phone: 301-891-8000 Web: www.mcps.k12.Maryland.us/schools/pineybranches/	Piney Branch Elementary School 7510 Maple Avenue Takoma Park, Maryland 20912
Principal: Dr. A. Robyn Mathias Phone: 301-431-7600 Web:ww3.mcps.k12.Maryland.us/schools/rollinges/	Rolling Terrace Elementary School 705 Bayfield Street Takoma Park, MD 20912
Takoma Park Elementary School Phone: 301 650-6414	8120 Carroll Avenue Takoma Park, MD 20912
Public Middle and High Schools	
Principal: Sawyer, Kevin A. Phone: 301-649-8121 Fax: 301-649-8145 Web: www2.mcps.k12.Maryland.us/schools/sligoms	Sligo Middle School 1401 Dennis Avenue Silver Spring, Maryland 20902
Principal: Maria Montgomery Phone: 301-650-6444 Web: www2.mcps.k12.Maryland.us/schools/takomaparkms/	Takoma Park Middle School 70611 Piney Branch Road Silver Spring, Maryland 20910
Principal: Phillip Gainous Phone: 301-649-2800 Fax: 301-649-2830 Web: www.mbhs.edu/	Montgomery Blair High School 51 University Boulevard East Silver Spring, Maryland 20901
Private Schools and Colleges	
Principal: Patrick Bates E-mail: bates@gchs.com Phone: 301-942-1155 Web: www.gchs.com	Our Lady of Good Counsel 11601 Georgia Avenue Wheaton, Maryland 20902
Prinicpal: Mary Doherty Phone: 301-649-3700, 3555, 4200	Saint Andrews the Apostle 11600 Kemp Mill Road Silver Spring, Maryland 20902
Principal: Sister Mary Raymond Logue Phone: 301-585-6873	Saint Michael's Catholic 824 Wayne Avenue Silver Spring, Maryland 20910
Saint John the Evangelist Phone: 301- 681-7656	10210 Woodland Drive Silver Spring, MD 20902

Private Schools and Colleges	
Calvary Lutheran School Phone: 301-589-4001	9545 Georgia Road Silver Spring, Maryland 20910
Administrator: Carol Hjortsberg Phone: 301-585-3515 Web: www.geds.org	Grace Episcopal Day School 9115 Georgia Road, Silver Spring, Maryland 20910
Headmaster: Mr. James H. Koan, II Phone: 301-649-1070 Web: www.wca1.org	Washington Christian Academy 1820 Franwall Road, Silver Spring, Maryland 20902.
Yeshiva of Greater Washington (boys) Phone: 301-649-6996	1216 Arcola Road, Silver Spring, Maryland 20902
Yeshiva of Greater Washington(girls) Phone: 301-649-6996	1840 University Blvd., West.Silver Spring, Maryland 20902
Columbia Union College Phone: 301-891-4125 or 800-835-4212 Web: www.cuc.edu/index.html	7600 Flower Avenue Takoma Park, MD 20912
Montgomery College Rockville Campus Phone: 301-650-1300 Web: www.mc.cc.Maryland.us/home.htm	51 Mannakee Street Rockville, Maryland 20850
Maryland College of Art and Design Phone: 301-649-4454 Fax: 301-649-2940 Web: www.mcadmd.org/	10500 Georgia Avenue Silver Spring, Maryland 20902-4111

Appendix 3. Table 8. April 10, 1999 Sligo Creek Trash Reduction Workshop Participants

Barth, Barry 7225 Garland Takoma Park, MD 20912 Bus: (202) 986-2200 ext. 3007 E-mail: bbarth@frac.org	Funn, Tracye Bus: (301) 595-8040 Bus Fax: (301) 595-8087 E-mail: tfunn@washgas.com
Boettinger, Pete Meadowbrook Maintenance Facility 8000 Meadowbrook Lane Chevy Chase, MD 20815 Bus: (301) 650-2628	Gilson, John and Alice 9202 Worth Ave. Silver Spring, MD 20910 Home: (301) 585-1214
Bonsby, Jack South Four Corners Citizens 9825 Dallas Ave. Silver Spring, MD 20901 Bus: (301) 592-0558	Harman, Jane 7241 Garland Ave. Takoma Park, MD 20912 Home: (301) 270-1629 E-mail: jharman5@juno.com
Carelli, Regina Home: (301) 649-7362 E-mail: carelli@erols.com	Holman, Mary 8814 Reading Rd. Silver Spring, MD 20910 Home: (301) 585-6635
Castillo, Donna Rae 9045 Manchester Rd. Silver Spring, MD 20910 Home: (301) 587-0815	Moore, Dixie 5110 Meadowside Lane Rockville, MD 20855 Bus: (301) 924-3123 E-mail: dixie_moore@fc.mcps.k12.md.us
Deeg, Bill 116 University Blvd. Silver Spring, MD 20910 Bus: (301) 593-7526	Johnson, Jim 8716 Plymouth St. Silver Spring, MD 20910 Home: (301) 587-7233 E-mail: 102516.1111@compuserve.com
Frazier, Richard Bus: (301) 217-6765 Bus Fax: (301) 217-6935	Julian, Lesley 501 Tulip Ave. #3 Takoma Park, MD 20912 Home: (301) 270-2561 E-mail: lesley.julian@noaa.gov
Lazarczyk, Jerry Bus: (410) 369-3519 E-mail: gerald.lazarczyk@espire.net	Stinnett, Vernon 12020 Plum Orchard Drive Silver Spring, MD 20904 Bus: (301) 572-5166
McNeill, Dorothy (Dottie) 909 Fairoak Avenue Chillum, MD 20783 Bus: (202) 232-6100 Home: (301) 559-1444 Bus Fax: (202) 483-4560	Tibbitts, Dale 9511 Saint Andrews Way Silver Spring, MD 20901 Bus: (202) 789-2000 Home: (301) 587-9358
Meigs, Sharon 9400 Peppercorn Pl, 6th FL. Largo, Maryland 20774-5359 Bus: (301) 883-5898 E-mail: meigssl@lgcfs003.co.pg.md.us	Victoria, Chris 1104 Merwood Dr. Takoma Park, MD 20912 Home: (301) 439-3930 E-mail: cj_victoria@hotmail.com

Muys, Nina 9204 Long Branch Pkwy. Silver Spring, MD 20901 Home: (301) 439-1847 E-mail: dutchiris@aol.com	Worzala, Chantal 6 Elwyn Ct. Takoma Park, MD 20912 Home: (301) 585-1121 E-mail: cworzala@jhsph.edu
Owens, Theo 9300 Kenilworth Avenue Greenbelt, MD 20770 Bus: (301) 513-7311	
Paglin, David Home: (301) 681-5442 Bus Fax: (301) 681-5442 E-mail: dpaglin@hotmail.com	
Palmer, Laurie 9115 Sligo Creek Parkway Silver Spring, MD 20901 Home: (301) 589-3437	