Land Use Initiative Scoping Study

Final Recommendations

**Prepared for the
Chesapeake Bay Funders Network**

Prepared by the **Environmental Finance Center** and the
National Center for Smart Growth Research & Education

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Executive Summary

Early in 2008, the Land Use Work Group of the Chesapeake Bay Funders Network (CBFN) sought the assistance of the National Center for Smart Growth (NCSG) and the Environmental Finance Center (EFC) in completing a scoping exercise designed to offer funders within the CBFN an informed perspective about land use in the Bay watershed. The data generated from this scoping exercise is intended to connect the interests, priorities, and concerns of a diverse range of stakeholders, create a framework for long-term funding decisions, and motivate future collaboration within the CBFN.

This report is a culmination of the scoping exercise. The work of the EFC/NCSG Project Team focused on two primary data collection tasks, the first being Funder Interviews, the second being Stakeholder Interviews, which included a number of Listening Sessions.

Approach and Process

The Project Team interviewed funding organizations within the CBFN to develop a better sense of each organization's priorities, interest areas, geographic range, and current/future projects. Funders interviewed were selected by the CBFN because of their ties to and participation in the CBFN Land Use Initiative. The Project Team also sought information on funding trends as well as input for the Stakeholder Interviews and Listening Sessions.

Ultimately, the Project Team completed 52 one-on-one Stakeholder Interviews with a broad range of regional, state, and local environmental organizations, watershed advocacy groups, government officials, and others in Virginia, Maryland, Pennsylvania, and the District of Columbia. Finally, the Project Team hosted a total of six Listening Sessions in the region. Three sessions were completed as part of an existing meeting, one with the Collaborative for Land Use Education (CLUE) Network, another with the Coastal Watershed Resources Action Committee (CWRAC), and a third as part of the Chesapeake Bay Program Local Government Advisory Committee (LGAC) meeting. Three free-standing Listening Sessions also took place – one on the Eastern Shore of Maryland, one in Harrisburg, Pennsylvania, and one via conference call with Stakeholders from Hampton Roads, Virginia.

General Observations

A number of overarching observations emerged as part of this process. First, it is the overwhelming observation of the Project Team that the current and future funding opportunities offered by the CBFN are sorely needed and will make a significant contribution to the entire Bay and watershed protection effort. Second, reviewing the data confirmed that, if the intention is to make a difference in Bay health, efforts must focus on initiatives that can address the full suite of issues associated with land use decisions. Third, it was observed that there are hotspots, or geographic areas that are rapidly growing and changing in the Chesapeake Bay watershed, that are not within the combined geographic scope of the key funders within the CBFN Land Use Workgroup. Fourth, the Project Team observed that some Stakeholder recommendations were

too grand-scale for the scope of the CBFN Land Use Initiative. These recommendations were pared down to a more tangible form. Finally, the Project Team, with assistance from Stakeholders, was able to compile a list of five underutilized existing resources (organizations, tools, and programs) that could be considered by the CBFN for partnership opportunities.

Stakeholder Feedback
Generally, the comments received from Stakeholders, both during interviews and as part of the Listening Sessions, can be divided into two broad categories. First, Stakeholders indicated the need to provide assistance to community-based organizations. Second, Stakeholders cited the need for assistance to local governments at virtually every jurisdictional level.

It was widely acknowledged that many groups that work within the Chesapeake Bay watershed emerge because something is happening on a very local level and no one appears to be helping. However, once the initial spark has died down, community-based groups often stagnate due to lack of leadership, direction, and funding. Stakeholders recommended providing assistance for community-based organizations in the form of initiatives that support capacity development, coordination among neighboring organizations, citizen participation and engagement, and messaging and social marketing. Specific support was also requested for existing land trusts.

Many Stakeholders, both within and outside of local governments, commented on the need for support for municipal activities. They cited two broad needs: (1) education, outreach and technical assistance, and (2) issue-specific assistance in the areas of transportation, planning, climate and energy, land conservation and restoration, and stormwater. Stakeholders believed that the greatest need was in areas of Maryland, Pennsylvania, and Virginia that are historically rural and are experiencing rapid change.

The Stakeholders suggested a broad range of projects and programs that could address various aspects of the needs that were raised. The Project Team considered these recommendations in the context of the criteria initially laid out by the CBFN – collaboration potential, opportunity to leverage, "niche" potential, and scale/potential impact.

Final Recommendations
It is the Project Team's assessment that, for some of the Stakeholder recommendations, similar projects are already being successfully addressed by the CBFN Capacity Building and Agriculture Initiatives. For other Stakeholder recommendations, the Project Team believed that similar programs were already under consideration in the CBFN Land Use Initiative working document called "Expanding Tools that Work."

With this said, any of the Stakeholder recommendations could be explored by the Project Team, however, as the Project Team engaged in this process and carefully considered the comments of the land use community, the continual call for the need to engage local governments in natural resource and watershed protection in a totally different way, got the attention of the Project Team. The Project Team offers three potential approaches to address this need: Bay Watch Grants to focus on enforcement; a Land Use Institute for Local Officials to focus on education;

and/or a Sustainability Assessment for Municipalities to focus on assessment. These initiatives have great investment potential for the Funders and successfully address multiple areas of concern that were expressed by Stakeholders throughout our interviews.

Sustainability Assessment for Municipalities – The Project Team recommends a program to assist municipalities in creating and expressing a community vision. This assessment would evaluate master plans, comprehensive plans, ordinances, zoning, and other departmental policies. Recommendations would be made to the municipality based upon where the community's current ordinances and policies are misaligned with its overall vision, with the end goal of assisting in the development of model language, examples, testimony, and strategies for public engagement to fuel actual municipal change in land use policy and practice.

Land Use Institute for Local Officials – The Land Use Institute for Local Officials would provide a learning opportunity focused specifically on ensuring that local government officials comprehend the intricacies of land use decisions, particularly as they relate to water quality. The courses would cover a broad spectrum of issues including green infrastructure planning, stormwater management, climate change, energy use, low impact development and others. Target audiences could include individual elected or appointed officials, entire governing boards or planning commissions or task forces, or group offerings at annual meetings of the Maryland Association of Counties (MACo), Virginia Association of Counties (VACo), Maryland Municipal League (MML) or similar local government organizations in Bay watershed states. (For more discussion on partnering with Associations of Counties, please refer to the section of this report entitled "Underutilized Existing Resources".)

Bay Watch Grants – The Project Team believes that CBFN could play an important role in filling the clear gap that exists with enforcement by providing funding to a handful of existing organizations in the watershed (most likely community-based organizations with strong local ties) willing to dedicate resources specifically to monitoring enforcement in their region. We recommend that CBFN consider funding an initiative that would seek to build upon and expand the reach of the "watchdog" role many organizations in the region already shoulder by helping community-based organizations interpret policy and by creating a Litigation Fund.

Introduction

Early in 2008, the Land Use Work Group of the Chesapeake Bay Funders Network (CBFN) sought the assistance of the National Center for Smart Growth (NCSG) and the Environmental Finance Center (EFC) in completing a scoping exercise designed to offer funders within the CBFN an informed perspective about the regional effort to protect the Bay watershed and input on potential opportunities for CBFN investment. The data generated from this scoping exercise are intended to connect the interests, priorities, and concerns of a diverse range of stakeholders, create a framework for long-term funding decisions, and motivate future collaboration within the CBFN.

This report is a culmination of the scoping exercise conducted by the EFC/NCSG Project Team from May through September of 2008. The following presents a summary of the data collected during a series of Stakeholder Interviews and Listening Sessions and provides recommendations for future consideration and investment by the funders.

According to the Land Use Initiative Action Plan drafted by the CBFN in December 2007, the stated goal of this plan was to "develop and implement a strategic plan that identifies how the CBFN can effectively reduce harmful stormwater runoff from developed lands in the Chesapeake watershed." However, it is the understanding of the EFC/NCSG Project Team that the Land Use Workgroup reached a point of indecision as to how best to proceed with this plan. While the initial focus of the Land Use Workgroup was stormwater management, a broader mission has emerged. To this end, the EFC/NCSG Project Team sought to gain insight into the most timely and critical issues in Bay watershed protection.

The Process

The work of the EFC/NCSG Project Team focused on two primary data collection tasks, the first being Funder Interviews, the second being Stakeholder Interviews, which included a number of Listening Sessions. The following details how each of these tasks were approached and performed.

Funder Interviews

In mid-May, the Project Team began interviewing funding organizations within the CBFN to develop a better sense of each organization's priorities, interest areas, geographic range, and current/future projects. Funders were selected by the CBFN because of their ties to and participation in the CBFN Land Use Initiative. The Project Team also sought information on funding trends (i.e., Are you getting requests focused on a particular area? Is there a clustering of need?), as well as input for the Stakeholder Interviews and Listening Sessions. All Funder Interviews were concluded by early-July.

The Associate Directors of the EFC and the NCSG and/or an EFC Program Manager met with representatives of ten organizations selected by the CBFN Co-Chairs. In most cases, interviews were conducted at the offices of the funder. Abell Foundation, Agua Fund, Biophilia Foundation, Chesapeake Bay Trust, Hillsdale Fund, Keith Campbell Foundation, Prince Charitable Trusts, Rauch Foundation, Town Creek Foundation, and William Penn Foundation participated in interviews. In addition, the Project Team interviewed an additional funding organization, the Virginia Environmental Endowment, based on the relevance of their work to these issues.

Stakeholder Interviews

Stakeholder Interviews began in early June. Due to tight summer schedules, and the wish of the Project Team to honor the agreed upon timelines, there was some overlap in the Funder Interview and Stakeholder Interview schedules.

Initially, the Project Team planned to complete ten to twelve Stakeholder Interviews. As the process progressed, it became apparent that (1) the scope of land use policy and practice in the region required the Team to seek out additional stakeholders and (2) much of the information gained from these one-on-one interviews proved to be invaluable and was well worth the additional time.

Lists of potential Stakeholders, including contact information, were generated for Maryland, Virginia, Pennsylvania, and the District of Columbia, and a fifth list was created for organizations and agencies with a regional focus. These lists of potential Stakeholders constantly expanded and evolved. The Project Team relied on a version of "snowball sampling" – a technique used by researchers in the social sciences where current study participants recommend additional participants and thus generate a larger sample – to not only populate our Stakeholder Interview lists but to ensure that the lists covered a cross-section of geographic regions within the watershed, sector (local, municipal, state, etc.), and land use issue. Initially, the lists were populated by Stakeholders suggested during the Funder Interviews as well as people and organizations known to the EFC or NCSG as experts in the field. As the Stakeholder Interviews got underway, Stakeholders commonly recommended others who should participate in interviews. While the final list of Stakeholders is in no way a comprehensive list of all the land use players within the region, the Project Team is confident that the list was inclusive enough to generate a diversity of perspectives.

The Project Team completed 52 one-on-one Stakeholder Interviews from a broad range of regional, state, and local environmental organizations, watershed advocacy groups, government officials, and others in Maryland, Virginia, Pennsylvania, and the District of Columbia. Many of the interviews took place at the offices of the Stakeholder, but some interviews were conducted over the phone. The Stakeholder Interviews were completed by August 1.[1]

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[1] Appendix A provides a list of Stakeholder Interview Questions. Appendix B includes a complete list of Stakeholders.

Listening Sessions

The Project Team hosted a total of six Listening Sessions with Stakeholders from Virginia, Maryland, Pennsylvania, and the District of Columbia. Because of the difficulty in arranging such meetings in light of summer schedules, the Project Team placed more emphasis on Stakeholder Interviews in early-summer and scheduled the majority of Listening Sessions for late-summer.[2] Listening Session participants were invited to the session via email invitation.[3] Listening Sessions were arranged in two ways: (1) as part of an existing meeting or (2) as free-standing events.

Three Listening Sessions were completed as part of an existing meeting, one with the Collaborative for Land Use Education (CLUE) Network in June, another with the Coastal Watershed Resources Action Committee (CWRAC) in July, and a third in mid-August as part of the Chesapeake Bay Program Local Government Advisory Committee (LGAC) meeting. In all three instances, the Listening Session was one agenda item within a larger meeting and, thus, was composed of people from those organizations/agencies who attended the meeting on the day of the Listening Session. The Project Team believed that this strategy was a cost-effective (because of the absence of meeting costs) and efficient way to gather a group of Stakeholders during the months when scheduling is the most difficult.

Three free-standing Listening Sessions also took place. Two of these Listening Sessions were facilitated in person – one on the Eastern Shore of Maryland and one in Harrisburg, Pennsylvania – and one was facilitated over the phone with Stakeholders from Hampton Roads, Virginia. The following provides a detailed description of each session.

CLUE Network Listening Session – The CLUE Network serves as a collaboration hub for faculty and extension agents within the University of Maryland system and fosters outreach and educational initiatives for communities, decision makers and other audiences on land use and natural resource protection. The CLUE Network Listening Session took place on Wednesday, June 18 on the campus of the University of Maryland in College Park with eight people participating including representatives from Maryland Cooperative Extension, College of Agriculture and Natural Resources, Maryland Center for Agro-Ecology, and the Departments of Architecture, Planning, and Geography.

CWRAC Listening Session – Located, administratively, within the Maryland Department of Natural Resources (DNR), CWRAC acts as an independent advisory body to the Secretary of Natural Resources and to Maryland's Coastal Program on policy issues affecting the coastal areas of Maryland. The CWRAC Listening Session took place on Friday, July 11 at the Podickory Point Yacht Club in Annapolis, Maryland. The fifteen participants included representatives of county planning departments in eastern Maryland, members of several DNR programs, and researchers from the University of Maryland.

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[2] Please see Appendix A for a list of Listening Session Questions. Appendix C contains a complete list of Listening Session participants.

[3] Please see Appendix D for a sample invitation.

LGAC Listening Session – This advisory committee is composed of officials appointed by the Governors of Maryland, Pennsylvania, Virginia, and the Mayor of the District of Columbia to strengthen the relationship between local governments and the Chesapeake Bay Program. The LGAC Listening Session was hosted on Thursday, August 21 in Fairfax, Virginia and included nine representatives from local governments in counties, cities, townships, and boroughs throughout the region as well as staff from the Alliance for the Chesapeake Bay and the DC Department of the Environment.

Eastern Shore Listening Session – On Tuesday, August 19, the Project Team facilitated the first free-standing Listening Session on the Eastern Shore of Maryland at the Wye Center for Agro-Ecology. The seven participants included representatives of two citizens' organizations, two land trusts, Maryland Cooperative Extension, and the Assistant Director of the Center for Agro-Ecology.

Harrisburg Listening Session – On Friday, August 22, in Harrisburg, Pennsylvania the Project Team held a Listening Session at the offices of the Center for Whole Communities, a William Penn Foundation associate. Six participants, representing two land trusts, two faculty members at Penn State, and two state officials, came together to discuss the unique land use issues facing Pennsylvania.

Hampton Roads Listening Session – On Tuesday, September 9, the Project Team convened a final Listening Session via conference call with four Stakeholders from the Hampton Roads area. The Chesapeake Bay Foundation and three citizen-based watershed organizations participated.

General Observations

Several noteworthy observations emerged as part of this process. First, it is the overwhelming observation of the Project Team that the current and future funding opportunities offered by the CBFN are sorely needed and will make a significant contribution to the entire Bay and watershed protection effort.

Second, as the Project Team reviewed the data and held a series of internal conversations about the findings, it confirmed our initial assumption that, if the intention is to make a difference in Bay health, efforts must focus on initiatives that can address the full suite of issues associated with land use decisions, including transportation, climate and energy, land conservation, and stormwater.

Third, it was observed that there are hotspots in the Chesapeake Bay watershed – geographic areas that are rapidly growing and changing – that are not within the combined geographic

scope of the key funders within the CBFN Land Use Workgroup. A more in depth discussion of these areas follows.

Fourth, the Project Team found the need to consistently reconcile grand or overly broad Stakeholder recommendations, like state policy change, transportation, or climate change, with the scale of this project. While the Project Team believes that the CBFN Land Use Initiative will be a powerful agent of change in Bay protection, this Initiative – and likely no other initiative, unless it has serious leadership on the federal level – cannot be expected to power the phenomenal needs identified over the course of this scoping study. When Stakeholder recommendations were too grand-scale, we attempted to ask Stakeholders to pare down their recommendations into tangible pieces.

Finally, the Project Team, with assistance from Stakeholders, was able to compile a list of underutilized existing resources (organizations, tools, and programs) that could be considered by the CBFN for partnership opportunities. Again, a more detailed discussion of these opportunities follows.

Hotspots

One of the outcomes of the data-gathering process engaged in by the Project Team was a compilation, though qualitative in nature, of areas in the Chesapeake Bay watershed that were perceived by Stakeholders to be rapidly growing and changing but may not yet be "on the radar" of the CBFN. These Stakeholder-identified hotspots are listed below by state.

Pennsylvania – Pennsylvania Stakeholders cited critical concern for the North Central and South Central parts of the state, or essentially the portions of Pennsylvania that are within the Chesapeake Bay watershed. In **North and Mid-Central Pennsylvania**, Stakeholders expressed deep concern for the burgeoning Marcellus Shale issue. Drilling the Marcellus Shale for natural gas could have extreme repercussions for water quality and quantity throughout the watershed and far beyond the borders of Pennsylvania. In addition, transportation issues are of grave concern as, at present, water is being trucked to drilling sites, used in the drilling process, and then trucked away to the very few Pennsylvania water treatment plants that can deal with the heavy-metal laden water.

Stakeholders also cited **South Central Pennsylvania** as a region of rapid growth and conversion of rural to suburban land uses. The fastest growing counties in this region, and thus candidates for critical action, were cited as **Franklin, Cumberland, Adams, York, Lancaster, and Lebanon**.

Maryland – Maryland Stakeholders noted hotspots on the Eastern Shore, ex-urban areas, the Pennsylvania/Maryland border, and Southern Maryland.

A suite of well-known concerns was listed for the entire Eastern Shore of Maryland. Specific locations included **Wicomico County** with insufficient planning capacity and concerns about zoning, or the lack thereof. (It was also noted that Wicomico County is interested in land

preservation tools, like TDR, but are lacking in guidance, mentoring support, and information.) In **Dorchester County**, Stakeholders cited concerns that newly updated Comprehensive Plans do not reference sea level rise due to climate disruption. Also, the county has no regulations on stormwater and is having difficulty preserving land in the county because they are not certified to receive Maryland Agriculture Land Preservation Funds (MALP).

Maryland Stakeholders confirmed the observations of Pennsylvania Stakeholders by citing **counties on the Pennsylvania/Maryland border** as areas of critical concern. **Washington County** was listed specifically due to rapid growth along the portion of the I-70 corridor west of Frederick, MD. Other ex-urban areas of concern included **Frederick County**, as growth continues to spill out of DC and expand past the Montgomery County border, and the I-95 corridor, **Howard and Anne Arundel Counties**. Maryland Stakeholders concerned with stormwater are currently in the process of identifying both the highest growth MS4 communities and the fastest growing areas that are not yet covered by a NPDES MS4 permit.

Finally, Southern Maryland was listed as a hotspot due to the 2010 termination of the Tobacco Buyout program in counties including **St. Mary's**. Growers who participated in the buyout have been receiving payments to keep their land in agriculture with the restriction that they may not grow tobacco. However, when the final payments are made in 2010, this land is not required to stay in agriculture and growers, many of whom are in their 60s, may be inclined to sell the land to developers. Currently, 34% of the participating growers are in St. Mary's County, the most of any of the participating counties.   The total amount of land protected by the Tobacco Buyout in the state of Maryland is 43,989 acres, 15,336 acres of which is in St. Mary's County.

Virginia – Stakeholders in Virginia cited **Hampton Roads** as a hotspot, particularly due to uncertainties as to how climate disruption will impact the region (as well as the effects of transportation on climate disruption). Stakeholders expressed the view that planning for climate change needs to begin now to prepare for impacts not felt for another 10-20 years. However, at this juncture, no one is really addressing it in their comprehensive plans despite polls showing that three of four Virginias believe that climate change is real and that federal, state, and local government should all be taking actions to fight it.

West Virginia – Stakeholders expressed concern for the **South Branch Watershed,** especially **Hampshire County**. This watershed in eastern West Virginia is one of two major tributaries of the Potomac River and is located entirely within the state. Because of the size of the watershed, the limited capacity of a very few community-based organizations in the watershed, and extremely limited resources in the West Virginia Department of Environmental Protection, this watershed is in critical need of assistance. In addition, as Loudon County, Virginia tightens the reins on development in their county, a leap-frog effect bringing additional development pressures can be expected in Hampshire County, as well as the counties of West Virginia's eastern pan-handle, many of which have little if any zoning restrictions on the books.

The Hampshire County Farmland Protection Board has made progress in obtaining easements in the county but much work is needed to build the capacity of this and other local organizations.

Assistance is needed in co-holding easements and providing legal and technical assistance in easement transactions as well as promoting the use of good standards and practices when it comes to land conservation transactions.

Regional – Of regional concern to Stakeholders was the Defense Base Closure and Realignment Commission Actions (BRAC) of 2005 which will bring significant population growth and corresponding development to the watershed. In Maryland, bases which will experience growth include **Patuxent River NAS Armory, Aberdeen Proving Ground, Bethesda Naval, Andrews AFB, Ft Detrick, and Ft Meade**. In Virginia, impacted bases include **Quantico, Ft. Belvoir, Ft Lee, and Norfolk**. Similar growth will occur at **Dover AFB** in Delaware and **Sheppard AGS** in West Virginia. **Lehigh, Tobyhanna, and Letterkenny** will impact Central and Eastern Pennsylvania. Letterkenny Army Depot, in Franklin County, Pennsylvania is of particular concern because, as indicated above, Franklin County is a relatively rural county on the border of Pennsylvania and Maryland.[4]

Underutilized Existing Resources

During the process of gathering information from the Stakeholders, the Project Team compiled a short list of noteworthy organizations, tools, and programs that were cited in an Interview or Listening Session. These organizations, tools, and programs had partnership potential but appeared, from our perspective, to be underutilized by the Chesapeake Bay watershed protection community. Five resources are listed below with a brief explanation of their attributes and why they could be explored by the CBFN as potential partners. While it is outside the scope of the current project to explore these resources further, the Project Team believed that they were an important piece to include in this report.[5]

Resource Conservation and Development Program (RC&D) – This program was created in 1962 (permanently authorized in 2002) under the United States Department of Agriculture (USDA) Natural Resources Conservation Service umbrella. The RC&D program connects federal money with local need in rural areas of the United States through RC&D councils comprised of local leaders.   RC&D councils improve the capacity of local leaders by bringing local governments, Indian tribes, non-profit organizations, and councils together to carry out community-oriented projects in accordance with the priorities of area residents. The RC&D program funds projects in land conservation, water management, community development, and land management.

RC&D programs are active throughout the Chesapeake Bay watershed. In Pennsylvania, for example, the entire state, except for Philadelphia, is covered by eight RC&D areas. Pennsylvania RC&D assistance ranges from agriculture management to wetlands protection to habitat management incentive programs. Because RC&D areas encompass several

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[4] Please see Appendix E for a map of the 2005 Defense Base Closure & Realignment Commission Actions.
[5] A list of these resources, with additional contact information, is included in Appendix F.

counties, the potential for partnering with RC&D staff on watershed-scale issues, especially public education, is significant.

Green Infrastructure Center (GIC) – Founded in 2006, the GIC is a non-profit organization that provides assistance to local governments, communities, regional planning organizations, and land trusts in developing strategies and plans to protect and conserve ecological and cultural resources. The GIC seeks to incorporate the benefits and services provided by natural systems and ecological processes into local decision-making and planning "by providing the economic rationale and practical methods and tools that enable people and communities to adopt green practices."

Based in Charlottesville, Virginia the GIC is a natural partner for CBFN projects. The GIC already does important work with communities in green infrastructure planning. The GIC also cites extensive partnerships with federal, state, county, and local governments and, with more financial support, could be positioned to leverage additional funding from other grant-making organizations.

River Network – The River Network, founded in 1988, is a national non-profit organization that supports grassroots watershed associations, statewide conservation groups, large river basin groups, Native American tribes, fishing and boating associations, businesses, state and federal governmental agencies and other national environmental organizations seeking to improve water quality and aquatic ecosystems. The River Network provides information, resources and training and has helped groups organize, grow, and become effective leaders in watershed protection and restoration. Today, the Network includes thousands of organizations.

The Maryland office of the River Network was one of the organizations interviewed for this scoping study. The Project Team is also aware that the CBFN has worked with River Network in the past, most recently as one of the mentors in the Capacity Building Initiative. In terms of the Land Use Initiative, both Stakeholders and the Project Team believed that the River Network could be a resource that is well-positioned to support community-based organizations in enforcement activities. The River Network currently assists some community-based organizations throughout the country in the interpretation of the Clean Water Act, and other policies, and how these regulations should be enforced in individual watersheds. The capacity of the River Network to continue this important work, however, is limited and could, perhaps, be expanded through a partnership with the CBFN. (For more on this discussion, please see the Project Team Recommendations section entitled "Enforcement.")

Chesapeake Bay Local Government Information Network (Bay LOGIN) – Established by the Local Government Advisory Committee of the Chesapeake Bay Program, Bay LOGIN is a website that provides access to information about current activities, grants and events that impact local governments in the Chesapeake Bay watershed. It is a place for local governments to learn from each others' efforts, exchange ideas, ask questions, and

post announcements. Bay LOGIN focuses on the following areas: water quality protection, sound land-use planning, living resources and habitat, and community engagement.

This resource, cited by a few Stakeholders and further explored by the Project Team, has the potential to host many of the potential programs and projects recommended in the Assistance to Local Governments section of this report. In its current form, Bay LOGIN is a well-organized and well-executed repository of resource links and RFP announcements and also hosts a listserv. However, the Project Team believes that the backbone provided by this website could be greatly expanded to become a hub of local government resources and training.

Associations of Counties – Associations of Counties can be found in each of the Chesapeake Bay watershed states as part of the national organization called NACo (National Association of Counties). These associations are a resource for county-level elected and appointed officials and may be the first organization that newly-elected or newly-appointed officials turn to for information on all matters of being a part of a county government.

A few Stakeholders voiced the idea that Associations of Counties could be an important way to reach county officials, especially those who are newly elected or appointed and have little background in environmental issues. While Associations of Counties typically do provide some information on environmental issues concerning county governments, this has not typically been the core of available resources. At the same time, more pressures on county government officials to comply with stormwater regulations and others are creating a need for this type of education.

In the case of Maryland, the Maryland Association of Counties (MACo) has a voluntary Academy for Excellence in Local Government that is a collaborative effort among MACo, the Maryland Municipal League (MML), the Local Government Insurance Trust (LGIT), and the Institute for Governmental Service and Research (IGSR) at the University of Maryland, College Park. While this academy does include *elective* courses in Environmental Issues and Land Use Planning, it is the belief of the Project Team (and the conclusion of Stakeholders in this study) that much more could be done to reach county officials on issues such as stormwater, land use planning, water quality, and land conservation. Associations of Counties are a well-placed and under-tapped opportunity to educate this sector about land use and water issues in the watershed.[6]

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[6] Note from the Project Team: The Jan 2009 MACo conference does not appear to have any stormwater, land use planning, water quality, or land conservation programming on the agenda. There will be, however, a presentation entitled "Big Questions in Growth Management: When, Where and How?" but the Project Team is unaware of who will be making this presentation and what quality of information will be presented.

Summary of Stakeholder Comments

Throughout this process, the Project Team put great emphasis on listening to the needs of the land use community in the Chesapeake Bay Watershed. As these needs were catalogued, some themes common to the entire watershed emerged. In addition, issues that are extremely timely and critical also surfaced, and although these are much more localized geographically, such as the Marcellus Shale concerns in Pennsylvania, if not properly addressed, the resulting environmental degradation could have watershed-scale effects. The broad range of needs identified in the interview process is detailed in this section of the report.

At the same time, the Project Team sought out truly concrete opportunities, such as existing successful small-scale projects that could be expanded upon or duplicated throughout the watershed, as well as innovative projects with great potential that are still at the incubation stage and in need of an appropriate launching pad. Above all, care was taken to assess these opportunities in the context of the characteristics originally described by the CBFN, which were:

1. **Collaboration potential** – opportunities with a high potential for jointly-funded collaboration with other funding organizations within the network;
2. **Leverage** – prime opportunities that are leverage points and, if implemented, could make a significant difference to the Bay watershed due to favorable timing, opportunity, or political will while providing the greatest potential return on CBFN investment;
3. **"Niche" potential** – opportunities that go beyond "funding by request" and, instead, offer foundations a meaningful "niche" to fill that supports, complements, and moves forward state and local government efforts; and
4. **Large scale, local impact** – opportunities with the potential to have a large-scale effect on planning decisions that are mainly made at the local level.

Generally, the comments received from Stakeholders, both during interviews and as part of the Listening Sessions, can be divided into two broad categories. First, Stakeholders indicated the need to provide assistance to community-based organizations. These organizations include land trusts, watershed and other community groups, Riverkeepers, and civic organizations with an interest in environmental protection. Second, Stakeholders cited the need for assistance to local governments at virtually every jurisdictional level, depending on the municipal structure of the state in question – city, town, township, or county.

Support for Community-Based Organizations
It was widely acknowledged that many groups that work within the Chesapeake Bay watershed emerge because something is happening in their watershed on a very local level and no one appears to be helping. Stakeholders frequently cited examples such as a fish kill, an algal bloom, rampant development, shoreline issues, etc. that act as a catalyst for the creation of a community-based organization. However, once the initial spark has died down, community-based groups often stagnate due to lack of leadership, direction, and funding. Stakeholders recommended providing assistance for community-based organizations in the form of initiatives

that support capacity development, coordination among neighboring organizations, citizen participation and engagement, and messaging and social marketing. Specific support was also requested for existing land trusts. The following narrative describes the Stakeholder recommendations for community-based organizations. This information can be found in a table format in Appendix H.

Capacity Development – Stakeholders generally believed that building the capacity of community-based organizations was essential to watershed protection. Stakeholders noted that these organizations often have volunteer boards and getting them to the point where they can hire their first staff person is critical. It was also noted that for community-based organizations to be self-sustaining they need to (1) develop a strategic plan outlining what they are going to address in the watershed and how; (2) establish organizational goals (3) build a strong Board (4) conduct marketing and (5) create a fundraising plan.   According to the Stakeholders, these organizations need more than just funding to make this happen. Leadership and facilitation from an experienced outside source is desperately needed to guide the process.

Fundraising needs were cited as a specific component of capacity development. The Project Team learned that, for most watershed groups, 80-90% of their funding is from foundations. Stakeholders suggested fundraising training workshops, with information on instituting membership dues, hosting special events, and seeking out major individual donors. The importance of having both members and donors as part of a fundraising strategy was also indicated. According to our interview with River Network, about 70% of an organization's members will be retained for at least five years but, for members who become donors, the retention rate increases to 85%.

Coordination– Coordination was recognized by many community-based organizations as vital to the efficient use of time and resources within individual organizations and among neighboring or like-minded organizations. Several groups – some very isolated – were unsure where their work may overlap with others and believed that coordination of calendars, events, and projects would facilitate all groups using funding and other resources more efficiently. Beyond simple logistical coordination, there was also a need for groups to be able to share research results and other information with each other. In addition, it was found that most watershed organizations don't generally integrate land use planning and smart growth principles into their watershed protection goals. Stakeholders felt that a coordinated effort to better connect these groups, particularly on land use issues affecting their watershed, could be done simply through information-sharing at monthly meetings, newsletters, a central website, or land use listserv. It was also suggested that meetings should be open to the public on occasion to hear from the community. This would also help engage more members and serve as an educational tool.

> *Stakeholder Project Recommendations:*
> o **Create a Watershed Network or Council of Watershed Associations that incorporates the principles of Smart Growth into its mission.** River Network is a

good model that has worked on the national level and many Bay watershed groups are already part of this network.

o **Create a Coordinator position.** This would be an individual who would serve as a resource to all of the watershed groups on land use issues and work towards educating the public and local officials and integrating land use planning into watershed protection goals.

Citizen Participation and Engagement – Several Stakeholders lamented the lack of citizen engagement in the effort to clean up local waterways. Residents often do not identify with a county, let alone understand what a watershed is or what watershed they live in. For example, Stakeholders in Pennsylvania stated that the majority of residents do not identify at all with the Chesapeake Bay Watershed despite the fact that fifteen of the state's fastest growing counties are within it.

There were many Stakeholders who expressed a need to change the mindset of people and offer education so that they could vote, become active in their community, and ultimately identify with a particular location and take a position. It was often cited as being the foundation of what would ultimately bring change to policy and bring forth action on important issues. Education and outreach (see section below) are seen as crucial to more effectively engaging citizens in the quest to improve Bay water quality. (Please see related comments in the *Messaging and Social Marketing* and *Education and Outreach* sections below.)

Stakeholder Project Recommendations:
o **Provide adult education and volunteer training opportunities**. These would be designed to help recruit, train, and organize citizen activism to better affect land use decisions as they relate to water quality, smart growth, and climate change. Training citizens on land use law and letting them understand what tools are and innovative protection measures are available could be done through a citizen training program or a *Citizen's Academy*. This academy could focus on historical and ecological background; the current regulatory framework; how to get involved in the Comprehensive Plan process; working within the system; and educational field trips.
o **Build a network of groups at a local level**. This would enable ideas and strategies for citizen participation to be shared among peers. Stakeholders suggested that this would be very useful and relatively low cost. Establish base support, for example for a project coordinator whose job includes civic education, directly in local communities to work with citizens. This approach has been very successful with Piedmont Environmental Trust, Partners for Smart Growth and several other stakeholders who voiced the need for citizens to have someone who is located locally and can work within a community as one of the citizens.
o **Create and promote more "success stories."** Case studies of effective Smart Growth oriented citizen activism that can be used as a model by others. In Virginia in particular, there tends to be an interest in seeing how other communities have fared with a new idea before implementing at home.

- o **Design an outreach booklet outlining opportunities.** A "Blueprint for a Better Region" could be designed to educate citizens and identify core opportunities for greater citizen engagement.
- o **Build on existing programs in the region.** There are a number of facilities in the region that offer opportunities and training in civic education such as the University of Richmond Bonner Center for Civic Engagement.
- o **Expand the use of volunteers.** Having citizens actively involved in the effort to protect their water resources, such as conducting water monitoring and assessment throughout the watershed, can build a greater sense of stewardship. Volunteers would be trained in interpreting the Clean Water Act, using standardized, reliable testing methods, presenting data in a scientifically appropriate manner, and posting data to a centralized database. In-kind relationships with laboratories that process the testing could also be pursued by these volunteers. The Stream Team model used by a number of jurisdictions in the region would provide a good model.

Messaging and Social Marketing – One of the most common themes from all Stakeholders, in all regions of the watershed, was how best to present the importance of water and resource protection and how to demonstrate to citizens the associated, and very personal, costs of not doing so.

Key issues that surfaced include:

(1) *How to reach a changing demographic* – Stakeholders, for instance, gave the example of Latinos moving north from Virginia, the District, and Maryland into central Pennsylvania.

(2) *The importance of compelling "water words that work"* – One Stakeholder cited the work of Eric Eckl, a public relations and marketing consultant, who runs an organization called "Water Words that Work." Stakeholders believed that the public is not comfortable with terms like "watershed" and "riparian buffer." One Stakeholder discussed the need to show the public that the quality of water is only as good as the quality of the community.

(3) H*ow to market environmental messages to a new constituency* – For example, most of Penn Environment's constituency is in the Philadelphia suburbs, and yet growth is taking place much more rapidly in other parts of the state.

(4) T*he need for building public relationships with very localized bodies of water* - Stakeholders voiced the need to connect citizens with their local river as opposed to asking them to make the leap to protect a Bay that seems very far away. This also addresses the issue cited by one Stakeholder that local governments, protective of their territory, are not inclined to restrict their local landowners in order to benefit water quality in another state.

(5) *How to include farmers in the very sensitive issue of water conservation* – For example, Pennsylvania Stakeholders indicated that there are few organized grassroots constituencies

that support the conservation of water. This is directly linked to fears of the agriculture community that water protection and planning will deprive them of water rights. (Please see related comments in the *Citizen Participation/Engagement* and *Education/Outreach* sections above and below.)

Stakeholder Project Recommendations:

o **Better assess local viewpoints.** Invest in developing a better understanding of the perspectives of various communities within the Bay watershed. This would enable groups to launch a consistent, effective, watershed-level outreach campaign that truly resonates with the target audience.

o **Stage a massive outreach campaign to educate and organize communities around specific issues such as the emerging natural gas drilling issue in Pennsylvania.** The Marcellus Shale, purportedly rich in natural gas, is an emerging "boom town" for developers looking to drill for gas. Although energy companies propose a small environmental footprint and have been quietly approaching landowners for drilling rights, water quality concerns, habitat disruption, inadequate legislation, and the lack of water treatment infrastructure suitable for cleaning the heavy-metal laden wastewater, are concerns of the land use community. While drilling the Marcellus Shale may provide the biggest economic boom in decades, Pennsylvania has a history of legacy issues due to resource extraction (including Acid Mine Drainage). Partners in this campaign could be Penn State School of Forest Resources and Penn State Extension.

Land Trusts – Land trusts face challenges unique among Stakeholders. While their primary need is for money to support their missions to preserve land, they serve a special function in their communities. They act as stewards of the land and in some cases as an educational resource for citizens and elected officials alike. Given these responsibilities, Stakeholders maintained that there is a role for land trusts to fill as advocates for land use policy change. Land trusts' position connecting citizens and politicians to the land make them well-poised to take a more active political stance in the struggle to enact sound land use policy in the watershed.

Stakeholders indicated that, for most small land trusts, funding was the most critical issue. Since there is not sufficient state funding to save all of the lands deemed critical, relying on land trusts is essential. However, Stakeholders expressed concerns over the lack of paid in-house staff necessary to effectively carry out land conservation activities. The most effective way to promote land conservation in the Chesapeake Bay is to focus on the capacity of the local land trusts. The Project Team also learned from Stakeholders of larger land trusts that they are engaged with mentoring smaller, less-organized land trusts and, through these relationships, are cultivating a more connected and effective land conservation community.

Stakeholder Project Recommendations:

o **Provide funding for training for land trust staffs and boards.** This could be done by state land trust groups or through conferences or special training seminars similar to the

Land Trust Alliance. The key would be to make it local and affordable. A suggestion was a few workshops throughout the year in each state.

o **Offer funding for increased staffing.** The decision to enter into an easement agreement is an extremely personal and emotional one. A good deal of staff time must be dedicated to building trust and establishing that personal relationship with landowners.   Funding is needed for the increased staffing these landowner outreach activities require.

o **Offer grants for landowner outreach and meetings.** Costs include researching and building landowner databases, developing mailings to landowners, preparing presentations and detailed handouts, staff time.

o **Offer professional seminars on the financial planning aspects of land conservation.** Professional seminars can be a great tool for helping landowners develop a better understanding of the benefits of donated easements. Having appraisers, accountants, lawyers and others who understand the legal and fiscal implications of conservation easements available provides participants with a one-stop-shop for sophisticated financial information designed to facilitate their decision making.

o **Consider longer-term grant programs with future funding tied to specific on-the-ground deliverables.** Stakeholders believed that money invested in existing land trusts can boost the impact of land conservation because funds are potentially matched many times over by the local land trust's own fund raising and membership dollars. A five or ten year grant program that requires meeting benchmarks such as holding a certain number of landowner meetings, providing one-on-one assistance with a set number of landowners, and completing easements on certain number of acres each year would ensure that funds hit the ground efficiently and effectively.

Assistance to Local Governments

Many Stakeholders, both within and outside of local governments, commented on the need for support for municipal activities. They cited two broad needs: (1) education, outreach and technical assistance, and (2) issue-specific assistance in the areas of transportation, planning, climate and energy, land conservation and restoration, and stormwater. Stakeholders believed that the greatest need was in areas of Maryland, Pennsylvania, and Virginia that are historically rural and are experiencing rapid change. The following narrative describes the Stakeholder recommendations for local government assistance; this information can be found in table format in Appendix I.

Education and Outreach – One Stakeholder described outreach as the slow work of changing the way a culture thinks. It was commonly held among Stakeholders that there is a need to improve the public awareness of the causes of poor Bay water quality, especially stormwater runoff. Government Stakeholders asserted that citizens simply do not see the connection between land use, development, and water quality. Both informal and formal environmental education programs are severely lacking, and citizens are unaware of how their municipality's regulations will affect future growth and land use patterns. In several jurisdictions, build-out analyses have been used effectively to show citizens what their town or county will

look like given their current zoning regime and projected growth scenarios. However, "smart growth" has become a phrase to avoid on the Eastern Shore of Maryland and elsewhere as different groups have redefined the term to suit their needs. Making the connection between growth, land use, and water quality continues to be a challenge.

Stakeholders also cited the need for outreach not just to the public but to elected officials. The need for municipal education is great both because of the sheer number of municipal officials in the watershed, but also because of the turnover that occurs with elected positions. In Pennsylvania alone, there are 2,565 municipal governments and over 33,000 elected officials in the state (including county, town, borough, school districts, etc.). (Please see related comments in the *Citizen Participation/Engagement* and *Messaging/Social Marketing* sections above.)

Technical Assistance – Several local and state government Stakeholders lamented the need for technical assistance in the form of additional skilled staff, guidance, and training. One Maryland Stakeholder stated that big counties, such as Prince George's, Montgomery, and Baltimore, have in-house expertise to design and manage projects or have standing contracts with local contractors. Most Maryland counties, however, do not have this capacity. In fact, another Stakeholder maintained that rural counties do not like standing contracts because they show up on the counties' debt analysis which can impact their bond rating.

Stakeholder Project Recommendations:
o **Develop incentives for the assessment of local programs.** A system of accounting the extent to which activities such as best management practices, green ordinances, environmental design, and others lead to budgetary savings could be a valuable tool for promoting and building support for these efforts within the community, as well as for expanding the implementation of these activities.
o **Provide funds for the initial implementation of new codes and ordinances.** Many municipalities are ready to put smart codes and ordinances in place, but are in need of funding or technical assistance to get the ball rolling while longer-term financing is identified. A scorecard that evaluates the progress of local communities could be used to reward those that move forward and make those who lag ineligible for funds.
o **Consider funding concepts that have not yet fully matured**. While the currently strong emphasis on implementation of proven strategies and solutions is certainly justified, experimenting with new approaches should also be supported financially to encourage innovation and help accelerate Bay restoration, smart growth and sustainability efforts.
o **Provide temporary funding for personnel**. Local governments often lack sufficient capacity to pursue grants and properly manage funded project, including technical expertise and contracts management. Funding for actual staff, especially planners, at some percentage and for a sufficient time to be eventually self-funded would help municipalities move restoration efforts forward.
o **Provide funds for training of municipal officials or improve access to regional experts**. Training in the areas of effective grant writing, strategic planning, or watershed

planning, or access to experienced service providers would help municipalities develop the capacity to more effectively protect water resources.

o **Remove barriers to making effective use of grant funds.** It was suggested that certain grant requirements, such as matching funds, can render deserving communities ineligible for funds. In other cases, the timing of the grant cycle does not mesh well with local planning or budget cycles. Removing these obstacles would enable municipalities to make more effective use of these funds on the ground in their communities.

o **Offer more buffer incentives.** Stakeholders felt that there is a need for additional incentives for local governments that encourage them to consider riparian and forestry buffers.

Issue-Specific Assistance

Almost all Stakeholders brought up the need for assistance and investment in programs that address resource protection issues specific to their geographic location, political climate, or community priorities. Concerns spanned the areas of transportation, planning, climate change, land preservation and stormwater. The following narrative describes the Stakeholder recommendations for issue-specific assistance; this information can be found in table format in Appendix J.

Transportation – Transportation policies and land use patterns take a tremendous toll on the environment the in Chesapeake Bay area and this was a theme universally discussed among Stakeholders in every region. Stakeholders maintained that without planning for new growth properly, new development moves into rural locations and the physical distance between affordable housing and places of employment grow further apart. Stakeholders cited increasing vehicles miles traveled, congestion, the expense of investing in new roads and maintaining old roads, and longer driving times as some of their greatest concerns.

Many Stakeholders pointed out that long-term planning in the realm of transportation is inadequate given the projected growth for many areas in the watershed. Mass transit is seen as a key element in the sustainable development of the Eastern Shore of Maryland and Stakeholders there are keenly aware that transportation problems are likely to emerge quickly as growth is expected to continue to expand there in the coming years. In Virginia, land use and transportation are more closely tied since the state Department of Transportation maintains most of the roads. Further, Stakeholders noted that because transportation routes cross political boundaries, regional transportation planning is a recurring topic of interest, although most recognize this is a politically delicate issue.

Stakeholders cited several ways to attempt to address transportation and limit its impact on the land. Planning for growth using smart growth principles was the most obvious solution recommended by Stakeholders. Better protection for rural areas was voiced as well. Getting civic organizations and nonprofits to be more engaged and knowledgeable about how to address transportation in the comprehensive planning process, demanding alternative transportation options such as public transportation, rail, carpooling, walking and biking, was

cited by Stakeholders as an essential strategy. Finally, it was widely acknowledged that although addressing transportation issues must be initiated at the local level, having a measurable regional impact will require leadership and coordination that comes from the state level.

Stakeholders made a few other important observations about transportation within the watershed. First, they stated that all of the states located in the Chesapeake Bay region are required to have a Transit plan in place, however, specific goals are not always attached to the broadly written plan. Second, Stakeholders observed that few employers in the region reward employees that reduce their vehicle miles traveled, which could open the door for an incentive program that would do so. Finally, Base Realignment and Closure (BRAC) is likely to bring an influx of additional residents and workers to many areas in the region and consideration must be given to how this will impact travel in the region.

Stakeholder Project Recommendations:

o **Invest in additional research and analysis.** Stakeholders felt there was a need for more data on transportation and land use. Geographically specific analysis, like what was done by the Southern Environmental Law Center for the Richmond area, would enable communities and local governments to make better-informed land use decisions.

o **Invest in a web-based transportation calculator.** A simple tool, similar to the premise of www.walkscore.com which allows users to type in an address and calculate a score of the walkability of a given neighborhood, could be developed to help users choose zip codes with more transportation options or closer access to their workplace. This would be extremely useful to people who are moving in the area as a result of BRAC, as well as those planning to settle across the Bay Bridge or in rural areas that may be more affordable but far from the workplace.

Planning – Almost every Stakeholder indicated a need for more and better planners and this was underscored heavily in less developed, rural counties throughout the watershed. Turnover in the planning offices of these jurisdictions is high, and expertise in the issues specific to rural areas is desperately needed. On the Eastern Shore, for example, Stakeholders were very concerned about the exodus of municipal planners due to an overbearing workload. One planner stated that she had been obliged to return grant monies awarded to her department because she did not have staff to complete the funded project. Although some counties, such as Montgomery and Prince George's Counties in Maryland, have the tax base to support a fully staffed and savvy planning department, the counties that are facing the most development pressure are the ones that do not have the resources to do so.

Stakeholder Project Recommendations:

o **Institute cost-sharing grants for watershed planners**. Similar grants, which share the cost of additional planning staff between a funding organization and the municipality, have been implemented in the state of Maryland and have led to the institutionalization of the planning position after only a few years. A grant such as this in Chester County, Pennsylvania, for example, would allow for an additional environmental planner to assist in land use decisions in the 73 municipalities within the county.

Climate Change and Energy – Stakeholders indicated that climate change appears on counties' agendas sporadically. Some counties have taken climate change, especially sea level rise, into account with the development of their comprehensive plans while others, including some coastal counties have not considered climate impacts at all. In other places, like Hampton Roads for example, Stakeholders indicated the need for long term planning to begin now for climate impacts projected twenty to thirty years in the future. Cities like Portsmouth, Norfolk, and Chesapeake appear to be watching and waiting for another City like Virginia Beach to take the lead. Information is needed now in order to help communities throughout the region prepare. In addition, using environmental markets to buy and sell credits related to pollution reductions that can help control climate change was discussed in several interviews. Suggestions were also made to bring energy efficient technologies to the region in order to reduce energy consumption, pollution, and bottomline costs.

Land Conservation and Restoration – Many suggestions were made by Stakeholders to assist local governments with land conservation and restoration. For example, though Maryland has several land preservation and conservation programs in place, most Stakeholders seemed to wish that more land could be conserved and spared from development. Stakeholders cited the biggest obstacle to this goal as money to purchase land, followed by the need to convince farmers that preserving their land is more valuable or important than selling that land for development. Farms and forests are seen as key to mitigating water quality in the Bay but also to preserving the natural and farming heritage of places like the Eastern Shore of Maryland and the Shenandoah Valley of Virginia. Several key Stakeholders expressed a strong need to increase funding for rural residential reforestation.

A few Stakeholders brought attention to the tobacco buyout in Southern Maryland which ends in 2010/2011. This program has protected approximately 44,000 acres of agricultural land that can no longer be used to grow tobacco but must remain in agriculture for the 10-year period stipulated by the buyout. According to several Stakeholders, there is no obligation by landowners in this program to protect the land from development once the buyout concludes. This program does include a small incentive to put the land in preservation through a county conservation easement, but funds are running low to meet this obligation. Additionally, Stakeholders maintained that landowners are generally retirement age and are not likely to hold onto the land for long.

Stakeholder Project Recommendations:
o   **Fund more trees.** Trees play a major role in the protection and restoration of the Bay. Stakeholders felt a need to fund more trees on the ground, not just to replace dead and diseased trees, but to conduct reforestation, forestation, and urban tree canopy efforts. Successful programs like the Baltimore County reforestation program funded through the Chesapeake Bay Small Watershed Grants program could be used as a model for the region.
o   **Make funding available for easement maintenance.** Stakeholders suggested putting money into a stewardship program to help maintain riparian easements.

- o **Consider the implications of the Tobacco Buyout.** When the buyout period ends, it is likely that many of these landowners will look to selling their land to provide retirement income. A second phase or follow-up program to the Tobacco Buyout could encourage landowners to continue to protect the land into the future.

Stormwater – Stormwater was a primary concern among Stakeholders in urban communities. These groups were well aware that urban stormwater runoff is the second largest contributor to nutrient and sediment pollution in the Bay, and that it is a particularly challenging issue to resolve given the highly diffuse and ubiquitous nature of runoff. There are currently no regulatory incentives to improve the quality of stormwater and the lack of green codes in city planning and building statutes does not help resolve the problem. Development and redevelopment projects in cities do not incorporate green infrastructure into site design and impervious surfaces continue to dominate the city landscape. Stakeholders in Maryland mentioned about the need for better site design and better links to resources for this design repeatedly.

Some Pennsylvania Stakeholders cited the need to improve the state's stormwater management requirements. Specifically, Stakeholders believed that it is essential to find a new sponsor for David Steil's Bill – HB 2266 – which would give counties the power to design broad water-management plans and to establish utilities to carry out those plans.

When it comes to green infrastructure, Stakeholders indicated a need for more education in terms of developing a better understanding of what green infrastructure means and how best to get this approach adopted in communities. One Stakeholder cited the need for funding public information and education programs around stormwater in order to build constituencies. For local governments, there is a need for the incorporation of green infrastructure standards into the comprehensive planning process.

Stakeholder Project Recommendations:
- o **Conduct additional research and analysis**. Stakeholders felt there was a need for more studies that review stormwater ordinances and existing policy and make recommendations for improvements. The process employed by the Southern Environmental Law Center in Albemarle County, Virginia in assessing development trends in the area would provide a good model. In addition, some Stakeholders, particularly in Virginia, felt that an assessment of the design standards, as they relate to true average rainfall might indicate areas for improvement of the design standards.
- o **Offer roundtable forums on these issues tied to implementation grants.** The roundtable forums held by the Center for Watershed Protection were designed to educate communities and help them come to consensus on what is needed in their Comprehensive Plan, watershed plans and stormwater plans. These were very popular, and similar to Virginia Beach's Green Ribbon Committee of 2007. Having an implementation grant tied to these forums would take steps to ensure that participant went back to their communities and applied what was learned.

- o **Duplicate the success of the Green Infrastructure Center.** The Green Infrastructure Center is a nonprofit organization established to assist communities in realizing the benefits of using a green infrastructure approach to protecting environmental and cultural assets.   This Center has worked extensively in Virginia and would provide a good model for a guidance and technical assistance institution in other parts of the region.
- o **Assist low-income residents in becoming part of the solution.** Stakeholders felt it important that environmental justice be served and low-income citizens be given opportunities to participate in addressing these issues. Some suggested providing these citizens with outreach as well as water and energy saving devices such as low flow shower heads, replacement light bulbs and the like. Others suggested incentive programs designed to encourage low-income residents to implement low impact development practices, such as rain barrels, rain gardens, and tree plantings.
- o **Consider a certification program.** The River Friendly Certification established in New Jersey promotes businesses who use certain Best Management Practices (BMP) and has been incredibly well received.
- o **Provide grants for urban "Green Alleys."** This program seeks to retrofit alleys with permeable pavement. This pavement reflects heat and water is filtered through a stone bed under the permeable layer, allowing it to recharge instead of becoming polluted stormwater runoff.   Forty-six green alleys have been created in Chicago, where the program originated. The program is now being duplicated in dozens of communities across the country.

Project Team Recommendations

The Project Team considered many of the Stakeholder recommendations listed above as possible opportunities for CBFN involvement and weighed them against the criteria of collaboration potential, opportunity to leverage, "niche" potential, and scale/potential impact. We also considered, based on the Project Team members' different areas of knowledge, the needs of the Bay watershed as we understand them and integrated those ideas with what we heard from Stakeholders.

In this spirit, we believe that there are three core approaches, implemented individually or in concert, to addressing this need – a focus on assessment, a focus on education, and a focus on enforcement.[7]

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[7] While education, in the form of a Land Use Institute, is one of our specific recommendations, it is worth noting that increased, improved and targeted educational offerings related to smart growth, environmental protection, and Bay restoration and water quality are threads that should be woven through all three recommendations. For example, if non-profit organizations are to be asked to help with enforcement through "Bay Watch Grants," then they would likely benefit from educational programs explaining the specific legal or regulatory requirements they would be receiving grants to monitor. Also, if, for example, we want municipal officials to better understand the principles of sustainability, they would find technical educational offerings in this area helpful.

Assessment – The Sustainability Assessment for Municipalities

As a final recommendation, we invite the CBFN to consider launching a pilot initiative in a few key regions throughout the watershed – one that might be coined a "Sustainability Assessment for Municipalities" – that would partner with local governments to inspire change in a municipality. The key to this change is that it would be coming from within the local government structure.

The idea for this recommendation comes from a model that has had tremendous success in the state of New Jersey through the work of the Stony Brook-Millstone Watershed Association (SBMWA). After learning about the process used by this watershed group and considering what has been incredible progress to date throughout that watershed, the Project Team believes that such a program could be a powerful force toward natural resource protection in the Chesapeake Bay region. This project has great investment potential for the Funders and successfully addresses multiple areas of concern that were expressed by Stakeholders throughout our interviews. It addition, this potential project fit the criteria of collaboration potential, opportunity to leverage, "niche" potential, and scale/potential impact in a way that deserved further exploration.[8]

Based on information received during one of our Stakeholder interviews, we learned about the widely successful and yet relatively unknown work of this watershed organization. Our research found that the SBMWA is dedicated to preserving clean water and the natural environment in a 265-square mile area of central New Jersey, drained by Stony Brook and the Millstone River. Among the many successes of this watershed organization are award-winning environmental education programs and a "River-Friendly" certification for businesses, schools, and residents who adopt environmental guidelines.

In addition to these successful programs, the SBMWA has partnered with fifteen of the twenty six towns that lie within their watershed to assist local governments in articulating each town's vision and develop strategies to strengthen natural resource protection through local and regional planning and decision-making. The partnership with local governments is solidified under a Municipal Assessment Program (MAP) which is an independent review of the environmental and planning health of the municipality that determines if its current structure (master plan, comprehensive plan, ordinances, zoning, policies, etc.) meets the community's vision and is equipped to protect its natural resources. After an assessment, municipalities are offered specific recommendations and then given support as they work through the process of improving laws, policies, and ordinances in their jurisdiction.

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[8] The New Jersey project is very similar to another successful project in Virginia Beach called the Green Ribbon Committee. We are still researching the outcomes and status of the Green Ribbon Committee in Virginia Beach, Virginia but believe that it has a similar emphasis on partnering with local government to make real change in land use policy and practice. If the CBFN is interested in pursuing this option, the Project Team will include details from the Virginia Beach initiative in our final report.

The idea for the Municipal Assessment Program, part of SBMWA's broader Project for Municipal Excellence and funded, in part, by the William Penn Foundation, came from a growing number of requests from municipalities for assistance on various planning and environmental issues like drafting ordinances, improving zoning, and increasing environmental protection. As indicated in the Stakeholder comments above, the Project Team heard many similar requests from Stakeholders in the Bay region. [9]

What is a Sustainability Assessment for Municipalities?

As proposed by the EFC/NCSG Project Team, a Sustainability Assessment for Municipalities is an independent review of a Chesapeake Bay watershed municipality's vision, policies, and plans. A selected municipality would work with a facilitating organization to, first, create and express a community vision and, second, assess the environmental and planning health of the municipality through a review of the master plan, comprehensive plan, ordinances, zoning, policies, etc. as described above. Recommendations would be made to the municipality based upon where the community's current ordinances and policies are misaligned with its overall vision, as well as where the community is successfully meeting its own goals. The facilitating organization would follow up this process with model language, examples, testimony, and strategies for public engagement to fuel actual municipal change in land use policy and practice. An important aspect of this assessment would be for the participating municipality to have access to a pool of funds following the assessment process to ensure that they can move immediately to the implementation of appropriate changes.

What are the Benefits of a Sustainability Assessment for Municipalities?

As we learned from our conversations with Stakeholders, local governments are in desperate need of support. Many municipal officials and others expressed deep frustration with municipal policies that run counter to other municipal policies or municipal practices. As discussed above, specific requests for help with education, outreach and technical assistance, along with issue-specific assistance in the areas of transportation, planning, climate and energy, land conservation and restoration, and stormwater were cited. A Sustainability Assessment would allow municipalities to step back and take a holistic view of the scope and consequences of their decisions, identify areas of success, and give them the tools to make any necessary changes. Municipal officials would also receive valuable assistance on issues like meeting (or exceeding) stormwater minimum control measures (MCMs) or planning for climate change where they may not have in-house expertise.

Citizens would benefit from the Municipal Assessment process as well by becoming involved in shaping the future of their communities. Stakeholders reiterated time and time again the belief that citizens who are better informed make better decisions for their community. This process offers citizens a chance to take stock of their community and envision a future that aligns with their concerns for rural legacy, economic development, or resource protection. Developers

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[9] A detailed case study of the New Jersey program can be found in Appendix G.

would also be able to see that a balance between preservation and development can exist through a more informed and well thought out process.

Community-based organizations, who are clearly key players in watershed protection throughout the Bay region, are natural partners in a Sustainability Assessment process. These groups would most certainly benefit by expanding their membership rosters and furthering their watershed protection goals.

Education – Land Use Institute for Local Officials

The need to provide local government officials with opportunities to expand their knowledge of land use and water quality issues was a theme that emerged repeatedly in Stakeholder interviews. As discussed earlier in this report, the need for education for this audience is great, both because of the sheer number of local government officials in the watershed, and because of the frequent turnover that occurs with elected and appointed positions. In Pennsylvania alone, there are 2,565 municipal governments and more than 33,000 elected officials in the state. In addition, even experienced officials with an understanding of the basics of land use decision-making may not realize the extent to which these choices impact water quality or be aware of how new or impending regulations might affect their communities.

There are a variety of institutes and academy-type programs in existence. Organizations, such as the Center for Watershed Protection, offer Watershed and Stormwater Institutes, but these are intended to meet the needs of a broad range of audiences. Many universities host institutes for local government as well, but these seek to assist with the diverse array of issues facing local officials and do not always focus on land use concerns. (For years, the University of Maryland offered a popular Smart Growth Leadership Program aimed primarily at mid-level federal, state and local government employees, but the program was discontinued for budgetary reasons.) Large independent institutes, such as the Lincoln Institute of Land Policy and the Urban Land Institute, are excellent resources for research and analysis on a the full spectrum of land use issues, but these organizations usually operate on a scale far removed from local governments.

Grow Smart Rhode Island's Land-Use Training Collaborative and the Essex County Forum Services in Massachusetts are two good examples of locally-grown educational programs. The Rhode Island program stemmed from a coalition of organizations and agencies that share a common commitment to smart growth and sustainable community development. One of the program's goals is to ensure citizens are armed with the knowledge necessary to have a strong voice in local growth and development decisions. As a result, the program focuses on building capacities within communities. This coalition includes groups with different perspectives, the educational offerings are considered to represent a balanced and comprehensive approach to land use issues. The Land Use Training Collaborative charges limited registration fees to cover costs.[10]

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[10] See: http://www.growsmartri.com/index.cfm?fuseaction=Page.viewPage&pageId=478

The Essex County Forum Series, started in 1999, offers seminars, workshops, conferences, roundtables, networking breakfasts and demonstration projects, often featuring "best practices" models. The program provides technical assistance and other types of planning aid in all 34 cities and towns in Essex County.[11]

There are also a large number of very effective existing organizations in the Bay watershed, such as Chesapeake NEMO (Network for Education for Municipal Officials), the Collaborative for Land Use Education (University of Maryland), and the major nonprofits like Chesapeake Bay Foundation and Alliance for the Chesapeake Bay, that work on land use issues. However, there is no established educational institute or academy that pools their collective knowledge for the specific purpose of helping decision-makers truly understand the connection between land use choices and their impact on water quality at any depth. What these organizations do possess is an understanding of the issues and audience involved and this perspective could make them excellent partners for developing such a program or vehicles through which to offer one.

The Land Use Institute for Local Officials would focus specifically on ensuring that local government officials comprehend the intricacies of land use decisions, particularly as they relate to water quality. The courses would cover a broad spectrum of issues including green infrastructure planning, stormwater management, climate change, coastal protection, energy use, low impact development, and others. It is not hard to imagine the Institute offering a "Planning 101" or "Smart Growth 101" course for beginners, but also offering more advanced "Smart Growth 201" or "Smart Growth 301" courses for communities or elected officials who are ready for it.

Because there are so many well-qualified existing organizations and agencies operating within the Bay watershed, we recommend a collaborative effort rather than an entirely new institution. An advisory board or panel of representatives of these organizations could work to assemble a curriculum from their existing resources. The Project Team believes that this Institute would be most effective if it included a few dedicated personnel to facilitate the administrative tasks of such a program. This group could also serve as or identify appropriate instructors and determine the method of delivery that would best meet the needs of participants, i.e. a traveling road show, stationary offerings at key locations in the watershed, etc. Separate municipal tracks and county tracks could be offered to address the different needs of these types of jurisdictions. Content could be separated into beginner, intermediate and advanced offerings as well to best meet the experience level of the officials involved.

One model to consider is the Circuit Rider approach recently proposed by the Chesapeake Bay Program's Local Government Advisory Committee (LGAC). In this model, Circuit Riders operate at the county-level, assisting up to ten counties in a given region. The Circuit Rider is primarily responsible for education, outreach, and technical assistance to local stakeholders, including municipalities. Education and outreach might include the following:

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[11] See: www.essexcountyforum.org

- Understanding and explaining to local stakeholders the similarities and differences in policy, government structure, population pressures, geography, natural resource pressures, etc. in each of the Bay states
- Advising local stakeholders in regulations and policies and how they should be interpreted in their watershed
- Helping local stakeholders draw connections between land/water resource quality and quality of life in a community

Technical assistance could include local priority setting, identification of resources required for success, and development of an implementation strategy. The Project Team believes that the LGAC model, if targeted to municipalities, could successfully address many of the local-government assistance needs cited by the Stakeholders and align with the intentions of our second recommendation. As LGAC is interested in this type of approach and is currently working through the process of creating such a program, the CBFN may wish to consider moving with due diligence to connect with LGAC officials.

Few state or local government agencies set aside money in their budgets for staff training, especially in these difficult fiscal times. Moreover, educational offerings must be conveniently scheduled to mesh with the work schedules of those who would attend and, if possible, should be convenient for them to attend, which may indicate that course offerings be mobile so that attendees can gain easy access.

Another option that could be explored would be to form partnerships with groups such as the local chapter of the American Planning Association or the local Board of Realtors®. Groups such as these are required to obtain certain minimum continuing education credits and are fully prepared to pay for such services. If they can become partners in some of the educational offerings suggested here, and if the offerings are certified for continuing education credit, the fees that their members would be willing to pay could be used to offset or even subsidize the cost of tuition for local elected officials, appointees or planning commissioners to attend.

Enforcement – Bay Watch Grants

There are a host of existing regulations in the Bay watershed, at virtually every jurisdictional level, designed to direct growth and protect water quality. However, as the state and local agencies responsible for ensuring compliance face budget shortages and hiring freezes, having adequate inspection and enforcement staff becomes nearly impossible. In addition, there is a need for assistance in identifying and prioritizing enforcement gaps and an external, non-governmental organization may be best positioned to fill this need.

The Project Team believes that CBFN could play an important role in filling the clear enforcement gap that exists by providing funding to a handful of existing organizations in the watershed (most likely community-based organizations with strong local ties) willing to dedicate resources specifically to monitoring enforcement in their region. We suggest that CBFN consider funding an initiative that begins with a Request for Proposal (RFP) that would seek to build upon and expand the reach of the "watchdog" role many organizations in the region already shoulder.

Suggested actions within the RFP could include keeping the public informed about the status of land use planning, monitoring the local government agencies responsible for land use decisions, working with mass media to raise public awareness about environmental issues, and participating in the public process to promote land use policies that protect the environment. To the extent that awarded organizations are aware of noncompliant parties, they can share this information with regulators to help target enforcement and, in worst-case scenarios, take legal action when necessary.

While the Chesapeake Bay Foundation (CBF) has a strong history of making effective use of the legal system, the Litigation Department at CBF is best-equipped to take on only the most critical and precedent-setting cases in the watershed. Similarly, the Natural Resources Defense Council (NRDC) effectively conducts these types of activities but on a scale too grand to meet the specialized needs of communities in the Bay region. Organizations such as 1000 Friends of Oregon and the Southern Environmental Law Center have a good deal of success filling this role on a regional scale and could provide an effective model for a similar effort in the Bay. However, it is the belief of the Project Team, and, in fact, the sentiment of many Stakeholders in this research, that smaller, yet important, battles are lost on the local level. Perhaps the best models are groups like the Waterkeeper Alliance and the River Network, who have historically been good models for local enforcement success but, as national (international, in the case of the Waterkeepers) organizations, must spread their services throughout the country and have limited capacity in the Chesapeake Bay watershed.

Thus, at the local level, support for enforcement could be accomplished in two ways: (1) by educating and advising community-based organizations on the interpretation of existing regulations and policies and assisting these organizations in determining how to enforce such regulations and policies in their own watershed and (2) by creating a Litigation Fund that may be tapped by community-based organizations to carry out litigious activities.

As indicated in the Stakeholder comments, much work is needed to help community-based organizations and local governments interpret policy, particularly at the local level. River Network, for example, advises organizations on the interpretation of the Clean Water Act as it applies to their local water bodies. For instance, a community-based organization may approach River Network upon identifying a certain pollutant in a stream with questions about how to proceed. River Network, in this scenario, may walk an organization through the process of deciding if or how to approach the polluter, understanding permitting, petitioning for permit changes, etc. This type of approach walks the organization to the brink of litigation but attempts to find a solution without invoking the court system.

A Litigation Fund, in contrast, would help citizens better position themselves to sue when necessary without the concern of big expenses. Citizens do, however, need a better understanding of what constitutes a legal violation and which instances are most appropriate for legal action. There is a need for a clearer interpretation of the rules and regulations at play, as well as the rights of citizens.

Outreach is clearly a key component of this "watchdog" function. Public education efforts can empower the people of a community to hold their decision-makers accountable and demand change.   In Maryland, for example, the state requires counties to adopt comprehensive plans, but none of the state agencies have the authority to enforce the implementation of these plans. In Worcester County this has resulted in the removal of several environmental components from their comprehensive plan, as well as the delayed implementation of the plan. The Assateague Coastal Trust would like to inform the citizens of the county about these issues, enabling them to attend hearings in February and demand these components be put back into the plan, and that the plan be implemented in a timely manner. However, organizations like the Assateague Coastal Trust need the resources to take on these important tasks. Ad development and placement alone for a project such as this would require a $25,000 expenditure.   Staff presentations at neighborhood association meetings and the hosting of public forums would incur additional expenses. The Funders of the CBFN are well-positioned to help address this need throughout the Bay watershed.

Concluding Comments

In conclusion, the EFC/NCSG Project Team appreciates the opportunity to present this project report to the CBFN Land Use Initiative workgroup. We appreciated your feedback at the September 26, 2008 Land Use Initiative workgroup meeting and have incorporated your comments and changes into this report. Throughout this process, we have worked to stay cognizant of your needs both as a Network and as individual Funders. With this in mind, we continue to be interested in your reaction to the Stakeholder responses as well as your thoughts on the proposed Stakeholder recommendations. Additionally, if you have comments or questions about pursuing the development of any of the three Project Team Recommendations described above, we would be happy to provide our input and expertise.

The Project Team

Project Manager

Megan Hughes, Program Manager – mhughes3@umd.edu

Megan Hughes comes to the EFC most recently from Bowling Green State University in Bowling Green, OH, where she served for four years as an Instructor and Internship Coordinator for the Center for Environmental Programs. In this capacity, she taught undergraduates on a variety of environmental topics including human population growth, biodiversity, land use, water, and climate disruption and focused on research, writing, and critical-thinking strategies. Prior to accepting this Instructorship, Ms. Hughes worked for two years with the Chapel Hill, NC, firm Environmental Consultants and Research (EC/R, Inc.) as a contractor to the Environmental Protection Agency Office of Air Quality Planning and Standards (OAQPS).

Ms. Hughes received her Master of Environmental Management degree from Duke University's Nicholas School of the Environment and Earth Sciences and a Bachelor of Arts Degree in Environmental Studies from the University of North Carolina at Wilmington. Her Master's Project, entitled "Creating the Urban Toolshed: A case study of Durham children's perceptions of nature and neighborhood," was authored during her time as an environmental education consultant for Durham Parks and Recreation in Durham, NC. During graduate studies, she also held a series of positions in the Triangle region of NC with the North Carolina Solar Center, the Center for Environmental Education, and Triangle J Council of Governments.

EFC/NCSG Project Team

Joanne Throwe, Associate Director, EFC – jthrowe@umd.edu

Prior to becoming Assistant Director in 2007, Ms. Throwe was the Agriculture Program Leader for EFC. She recently completed an 18-month assignment working with USDA/CSREES as shared faculty to assist in the coordination of special agriculture projects. Ms. Throwe works with communities in the Mid-Atlantic region implementing innovative financing solutions for environmental protection. Her work experience includes extensive knowledge about agriculture, green infrastructure, biofuels, ecosystem services and solid waste management. She assisted with developing a "Women in Agriculture" Symposium for the University of Maryland, a national conference for USDA on "Water Reuse Applications in Agriculture" and a Sustainable Infrastructure for Water and Wastewater conference for EPA Region 3 and Region 4.   Ms. Throwe currently participates in several committees, including Mid-Atlantic Water Quality Advisory Committee for Region 3; USDA Ecosystem Services Group; and the Shenandoah Valley Waste Solutions Forum. Prior to joining the EFC, Ms. Throwe spent several years as a Development Resource Specialist at USDA's Foreign Agriculture Service and two years as an Agriculture Extension Agent for Peace Corps in the South Pacific. She holds a M.A. in Public Policy and Private Enterprise from the University of Maryland. She also received intensive agriculture training from the Hawaii Loa College and the East West Center in Hawaii.

John Frece, Associate Director, NCSG – jfrece@umd.edu
John Frece is the Center's Associate Director and an adjunct professor in Urban Studies and Planning. His responsibilities include public outreach and response to media inquiries related to Center research projects, smart growth generally and Maryland's Smart Growth initiative specifically. He coordinates publications, web page content, writes and edits articles and reports, assists and teaches in the Center's Smart Growth Leadership Program, and serves as a deputy to the Executive Director. Frece leads the Center's efforts as a partner in the Governors' Institute on Community Design, a project that provides workshops on land use issues for governors around the nation. At the University of Maryland, he has taught a graduate course in "The Politics of Smart Growth," has served as a coordinator of the Center's Reality Check *Plus* growth visioning exercises, and helped plan the Center's Smart Growth @ 10 conference.

Frece previously worked for seven years on the staff of former Maryland Governor Parris N. Glendening, where he was a coordinator, adviser and chief spokesman for Maryland's Smart Growth initiative. For more than two decades prior to that, Frece was a longtime newspaper reporter covering politics and government for the *Baltimore Sun, United Press International* and the *Reston (Va.) Times*. He is co-author of *My Unexpected Journey: The Autobiography of Governor Harry Roe Hughes* (The History Press, 2006), co-editor of *Incentives, Regulations and Plans: The Role of States and Nation-states in Smart Growth Planning* (Edward Elgar, 2007), and author of *Sprawl & Politics: The Inside Story of Smart Growth in Maryland* (SUNY Press, 2008). He holds a B.A. in philosophy from the College of William and Mary in Virginia.

Jennifer Cotting, Program Manager – jcotting@umd.edu
Jennifer Cotting joined the EFC in 2004 to manage an EPA funded program designed to help communities and organizations in Region 3 overcome barriers to implementing and financing their watershed protection efforts. Now she coordinates a number of the EFC's core programs, with a particular focus on urban greening, tree canopy, and green infrastructure issues. Prior to joining the EFC, Ms. Cotting worked as an independent consultant developing and implementing environmentally based education and outreach programs for nonprofit organizations and government agencies. She received her M.S. in Sustainable Development and Conservation Biology from the University of Maryland and her B.A. in Communications from Marymount University. Ms. Cotting is also co-editor of Urban Wildlife News, the biannual newsletter of the Urban Wildlife Working Group of The Wildlife Society.

Elizabeth Skane, Graduate Student Assistant – eskane@umd.edu
Elizabeth Skane joined the Environmental Finance Center as a graduate research assistant in 2008. Ms. Skane is currently pursuing a Master of Public Policy and a Master of Science in Sustainable Development & Conservation Biology at the University of Maryland. Before returning to graduate school, she spent four years as a consultant writing air emissions inventories, environmental assessments, and a guide for program managers, on several military installations, and was a Science Assistant in the Biological Sciences Directorate at the National Science Foundation. Last summer she interned at Resources for the Future researching the extent to which restoration activities can positively affect ecosystem benefits and services. Ms. Skane earned her Bachelor's degree in Environmental Sciences at the University of Virginia.

Appendices

Appendix A: Stakeholder Interview and Listening Session Questions

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Appendix H: Matrix of Stakeholder Recommendations for Community-Based Organizations

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Appendix A: Stakeholder Interview and Listening Session Questions

Chesapeake Bay Funders Network (CBFN)
Land Use Initiative Strategic Planning Project

Stakeholder Interview Questions/Listening Session Questions

The purpose of this project is to complete a scoping exercise that will offer funders within the Chesapeake Bay Funders Network (CBFN) an informed perspective about the regional effort to protect the Bay watershed. The data generated from this scoping exercise will connect the interests, priorities, and concerns of a diverse range of stakeholders in order to frame long-term funding decisions and motivate future collaboration within the CBFN.

The outcome of this exercise will be a "short list" of opportunities, informed by an intensive data-gathering exercise, for the CBFN to explore. The recommendations will be designed to guide the Network in future decisions about their Land Use Initiative funding strategy.

We would like to use the name of your agency/organization in the final report (especially if you have a great idea or make an especially important comment) but will take care not to reference the agency/organization in a negative way. If you make a comment during the interview that you wish to be kept confidential, please let us know so that we can make a note of it.

The following topics are of interest to the National Center for Smart Growth/Environmental Finance Center (NCSG/EFC) as we begin Phase II of the CBFN strategic planning project.

1. **Agency/Organization Name:**

2. **Sector** [state, local, academic, regional, municipal, NGO]:

3. **Land Use Focus [most organizations will have more than one focus – list the priority areas of the organization]** [water quality (storm water, source water protection), transportation/growth, land use planning, county and municipal associations, etc.]:

4. **Geographic Region Covered by Agency/Organization:**

5. **The funders want to know what is on the horizon for Bay watershed protection -** What does your organization see as a near-term opportunity (or "the next big opportunity" for Bay protection? If you had the funding to do so, how would your organization plan to make this opportunity happen? (Concrete steps would be helpful here.)

6. **What are other timely and critical issues in watershed protection?**

7. **What other watershed protection agencies or organizations do you have a <u>very good</u> working relationship with? What projects have you done together?**

8. **If you had the financial resources:**

   a. **What equipment, supplies, software, tools would your agency/organization buy?**
   b. **How many additional personnel would you hire (if any)?**
   c. **How would you prioritize the purchase of these additional resources?**
   d. **What BIG expenses would make the list – purchase of land/easements, educational campaigns, marketing materials, etc.?**

9. **If a funder wanted to drop $15,000 (for small agencies/orgs) to $30,000 (for large agencies/orgs) that you could spend on anything, what would you purchase?**

10. **What would make your agency/organization a more powerful force for Bay protection?**

11. **State Policy Making and Implementation**
    a. What realistic state-level policies (new and existing planning, land preservation, transportation policies, etc.) are needed to support water quality protection?

12. **Local Policies and Practices**
    a. What needs to happen at the local level to better protect/improve the Bay watershed?
    b. What is the best approach to technical assistance for local governments – Circuit rider? Grants? Capacity-building approach? Contracts for technical assistance at will? What is the best way to help your agency/organization?
    c. Comprehensive Planning
        i. What are potential opportunities for incorporating water quality protection into local comprehensive planning efforts?
        ii. What are the gaps – technical, financial, political – that are stalling this process?
    d. Land Preservation
        i. What are potential opportunities for increasing the scope of land preservation toward protecting and restoring water quality?
        ii. What are the gaps – technical, financial, political – that are stalling this process?
    e. Land Use Implementation Tools
        i. What are potential opportunities for leveraging local land use tools (zoning, building/subdivision codes, ordinances) to improve water quality protection efforts?
        ii. What are the gaps – technical, financial, political – that are stalling this process?

Appendix B: Stakeholder Interview Participants *(Revised Dec 1, 2008)*

Last Name	First Name	Professional Title	Organization
Armstrong	Casey	Stormwater Administrator	Rockingham County, VA
Bailey	Ronald	Executive Director	Chester County Planning Commission
Bowen	Greg	Director	Calvert County Department of Planning and Zoning
Burke	David	President	Burke Environmental Associates
Carrera	Jackie	President and CEO	Parks and People Foundation
Casey	Frank	Director of Conservation Economics Program	Defenders of Wildlife
Clifton	Kelly	Associate Professor	Urban Studies & Planning Program, University of Maryland
Coyman	Sandy	Planning Director	Worcester County, MD
Donoho	Candace	Director, Governmental Relations	Maryland Municipal League
Eckman	John	Executive Director	Valley Conservation Council
Etgen	Rob	Executive Director	Eastern Shore Land Conservancy
Firehock	Karen	Executive Director	Green Infrastructure Center
Flynn	Mark	Director, Legal Services	VA Municipal League
Grape	Laura	Senior Environmental Planner & Chesapeake Bay Program Manager	Northern VA Regional Commission
Guthrie	Lisa	Executive Director	VA League of Conservation Voters
Hawkins	George	Director	District Department of the Environment
Henderson	Rhonda	Director of Planning	Rockingham County, VA
Honeczy	Marian	Acting Supervisor, Urban and Community Forestry	MD Forest Service
Horton	Tom	Writer/Journalist	Baltimore Sun
Jarrett	Jan	Vice President	Penn Future
Kiliam	Gayle	Director of Protection and Restoration Program	River Network

Knapp	Leslie	Associate Director	Maryland Association of Counties
Masur	David	Director	PennEnvironment
McCarthy	Gerry	Executive Director	VA Environmental Endowment
McClellan	Eileen	Chesapeake Bay Project Coordinator	Environmental Defense
Merkel	Michele	Chesapeake Regional Coordinator	Waterkeeper Alliance
Miller	Chris	President	Piedmont Environmental Council
Novotney	Mike	Water Resources Engineer	Center for Watershed Protection
Obenshain	Beth	Chairman (Executive Director)	Virginia's United Land Trusts (VaULT) (New River Land Trust)
Olcese	Mary Ellen	Mid-Atlantic Program Manager	River Network
Owlsley	Amy	Director of Land Use Planning	Eastern Shore Land Conservancy
Peck	James	Director of Research & Information Management	Maryland Municipal League
Pippel	Julie	Director of Public Works	Washington County
Pollard	Trip	Director, Land and Community Project	Southern Environmental Law Center
Richards	Heather	Director of Land Conservation	Piedmont Environmental Council
Roby	Mary	Executive Director	Herring Run Watershed Association
Schmidt-Perkins	Dru	Executive Director	1000 Friends of Maryland
Schueler	Tom	Founder	Chesapeake Stormwater Network
Schwank	Judy	President and CEO	10,000 Friends of Pennsylvania
Schwartz	Stu	Executive Director	Coalition for Smarter Growth
Sheppard	Sheila	Coordinator	Partnership for Smarter Growth
Stewart	Douglas	Development and Communications Director	1000 Friends of Maryland
Strum	Paul	Program Director/Biologist	Center for Watershed Protection
Stiles	Skip	Executive Director	Wetlands Watch
Tansey	Helen	Executive Director	Virginia Forever
Tassone	Joe	Director, Land Use Planning and	Maryland Department of Planning

		Analysis	
Thompson	Denise	Director, Marketing and Member Services	Virginia Municipal League
Vail	John	Executive Director	Sassafras River Association
Veith	Sue	Environmental Planner	St. Mary's County
Watkinson	Kelly	Senior Director of Land Protection	Potomac Conservancy
Wilson	Emily	Legislative Officer	Maryland Department of Natural Resources
Yeong Kwon	Hye	Executive Director	Center for Watershed Protection

Appendix C: Listening Session Participants

CLUE Listening Session
June 18, 2008
University of Maryland, College Park, MD
Facilitated by: John Frece, Megan Hughes, Elizabeth Skane, Joanne Throwe

Last Name	First Name	Title	Organization
Almquist	Dave	Director	MD Cooperative Extension - Cecil County
Carrasco	Vicky	Coastal Communities Specialist	Maryland Sea Grant
DeMarsay	Ann	Regional Extension Specialist	MD Cooperative Extension
Dindinger	Jen	Communications and Outreach Coordinator	Harry R. Hughes Center for Agro-Ecology
Lipton	Doug	Director	Maryland Sea Grant & AREC
Myers	David	Associate Professor & Director	UMD Department of Landscape Architecture
Parker-Cox	Robin	Director	Institute for Governmental Service and Research
Pee	Daphne	Faculty Extension Assistant & Water Quality Liaison	Chesapeake Bay Agricultural Programs, Mid-Atlantic Water Quality Program

CWRAC Listening Session
July 18, 2008
Podickory Point Yacht Club, Annapolis, MD
Facilitated by: John Frece, Megan Hughes

Last Name	First Name	Title	Organization
Abe	Joe	Chief	DNR, Chesapeake and Coastal Program
Bell	Dionne	Administrative Assistant	
Carrasco	Vicky	Coastal Communities Specialist	Maryland Sea Grant
Cortina	Chris	Natural Resources Planner	DNR, Chesapeake and Coastal Program
Decker	Carrie	Nonpoint Source Program Coordinator, Coastal Planner	DNR
Dungan	Allison	Planner	Caroline County Department of Planning and Codes
Freeman	Kathleen		Caroline County Department of Planning and Codes
Gamber	Brice	Chairman	Talbot County Creekwatchers, Water Quality Monitoring Program
Greer	Jack	Assistant Director for Communications and Public Affairs	Maryland Sea Grant

Hankins	Harriet	Citizen	Dorchester County
McCall	Catherine		DNR, Chesapeake and Coastal Program
Outen	Don	Natural Resource Manager	Baltimore County Department of Environmental Protection and Resource Management
Pudelkewicz	Pat	Chief	Harford County Planning and Zoning, Environmental Planning Section
Raulin	Jenn	Grants Manager	DNR, Chesapeake and Coastal Program
Veith	Sue	Environmental Planner	St. Mary's County Department of Planning and Zoning

Maryland Eastern Shore Listening Session
August 19, 2008
Wye Research and Education Center, Queenstown, MD
Facilitated by: Megan Hughes, Elizabeth Skane

Last Name	First Name	Title	Organization
Krishnamurthy	Vikram	Staff, Stewardship	ESLC
Lewis	Jim	Director	Caroline County Cooperative Extension
McCulley	Catherine		Dorchester Citizens for Planned Growth
Stoecker	Diane		Dorchester Citizens for Planned Growth
Patton	Kate	Executive Director	Lower Shore Land Trust
Taylor-Rogers	Sarah	Assistant Director	Center for Agro-Ecology
Ward	Megan	Program Coordinator	Nanticoke Watershed Alliance

LGAC Listening Session
August 21, 2008
Madison Government Center, Annandale, VA
Facilitated by: Joanne Throwe

Last Name	First Name	Title	Organization
Briddell	Phillip	Vice Chair	York Township
Davis	Diane	Vice Chair	DC Department of the Environment
Gross	Penny	Chair	Fairfax County Board of Supervisors
Guns	Mark	Commissioner, 5th District	Cecil County Board of Commissioners
Keister	Rick	Staff	Alliance for the Chesapeake Bay
McGowan	Maureen		Office of the City Administrator
Pettyjohn	Russel	Mayor	Lititz Borough
Thomas	Sally	Vice Chair	Albemarle County Board of Supervisors
Wells	Tommy	Council Member	Ward 6, District of Columbia
Willey	Robert	Mayor	Town of Easton

Harrisburg, PA Listening Session
August 22, 2008
The Foundation for Enhancing Communities, Harrisburg, PA
Facilitated by: Lisa Grayson Zygmunt, Megan Hughes

Last Name	First Name	Title	Organization
Aballa	Charlie		Penn State
Hutchinson	Anne	Senior Director Municipal Services	Natural Lands Trust
Murin	Ken	Chief	Pennsylvania Department of Environmental Protection, Waterways, Wetland and Stormwater Division
Saacke Blunt	Kristen	Director	Agriculture & Environment Center, Penn State
Smith	Ann		Pennsylvania Department of Environmental Protection, Nutrient Trading Program
Swinehart	Jeff	Deputy Director	Lancaster Farmland Trust

Hampton Roads Listening Session
September 9, 2008
Listening Session Took Place Over the Phone
Facilitated by: Joanne Throwe

Last Name	First Name	Title	Organization
Everett	Christy	Assistant Director, Hampton Roads	Chesapeake Bay Foundation
Rieger	Joe	Director	Elizabeth River Watershed Restoration
Styles	Skip	Director	Wetlands Watch
Wilson-Forget	Karen	Executive Director	Lynnhaven River Now

Appendix D: Listening Session Invitation (Maryland Version)

As a key land use practitioner in Maryland, we would like to invite you to participate in a Listening Session on Tuesday, August 19 from 10am-12pm at the Harry R. Hughes Center for Agro-Ecology at the University of Maryland Wye Research and Education Center in Talbot County. The Listening Session will be held in the Library.

About this project:

The Environmental Finance Center and National Center for Smart Growth (EFC/NCSG) at the University of Maryland are working with the Chesapeake Bay Funders Network (CBFN) on a scoping exercise for the CBFN Land Use Initiative. The CBFN is made up of foundations including the Abell Foundation, Agua Fund, Biophilia Foundation, Chesapeake Bay Trust, Hillsdale Fund, Keith Campbell Foundation, Prince Charitable Trusts, Rauch Foundation, Town Creek Foundation, and the William Penn Foundation. The Network is seeking an informed perspective about the regional effort to protect the Bay watershed in order to frame long-term funding decisions and motivate future collaboration within the CBFN.

About the Listening Session:

Throughout the month of August, Listening Sessions will be conducted in key locations throughout Maryland, Pennsylvania, and Virginia. We are interested in your input on the most timely and critical issues facing Maryland in the effort to protect the Chesapeake Bay watershed.

The Listening Session will be facilitated by Megan Hughes, Program Manager at the Environmental Finance Center and will include a catered brunch. Discussion will last about two hours. Space is limited so please let us know if you plan to bring additional staff members. Directions to the Wye Center are attached to this email. Please RSVP to Elizabeth Skane at eskane@umd.edu or 301-405-4035 by Thursday August 14th.

Appendix E: Regional BRAC Map

From **Defense Base Closure and Realignment Commission Final Report** *found at*
www.brac.gov/finalreport.html

Appendix F: Underutilized Existing Resources

Resource	Website Contact Information	Sector
United States Department of Agriculture, Natural Resources Conservation Service, Resource Conservation and Development Program (RC&D)	http://www.nrcs.usda.gov/programs/rcd/	Federal
Green Infrastructure Center	http://www.gicinc.org/index.htm	Non-profit
River Network	http://www.rivernetwork.org/	Non-profit
Bay LOGIN	http://www.baylogin.org/	Federal/non-profit partnership
Associations of Counties	**Virginia** - http://www.vaco.org/ **Maryland** - http://www.mdcounties.org/ **Delaware** - Delaware Association of Counties**,** 12 N Washington Avenue, Lewes, DE 19958-1806 (no web address) **West Virginia** - http://www.wvaco.org/ **Pennsylvania** - http://www.pacounties.org/ **New York** - http://www.nysac.org/	Inter-county partnership

Appendix G: Case Study: Stony Brook-Millstone Watershed

Background

The Stony Brook-Millstone Watershed Association (SBMWA) serves an estimated 400,000 residents and covers all or part of twenty six municipalities and five counties in central New Jersey. This very successful watershed organization conducts four core programs areas designed to meet their overall mission of conservation.

The SBMWA seeks to preserve natural lands and open space in the watershed by maintaining an 830 acre nature reserve; providing year round environmental education programs for children and adults; researching and monitoring water quality in local streams; and engaging towns, businesses, and landowners in improving land use decisions that impact the environment. Although the SBMWA has had huge success on many of the innovative programs in these four core areas, one program stands out in terms of outstanding land use achievements and has great potential to be replicated in other parts of the country. In 2001, the SBMWA began the "Program for Municipal Excellence," as a way to effectively partner with municipalities and examine the discrepancies between existing master plans (comprehensive plans) and land use ordinances.

The overall goal of the SBMWA assessment is to help municipalities identify specific areas where they can better protect their environment through local regulations. The Municipal Assessment is a planning document that constructively analyzes laws and policies and makes recommendations for good planning. The SBMWA uses the Municipal Assessments as an independent review of the municipality's vision, policies, and plans.

How the Municipal Assessments Began

New Jersey is a strong home rule state and locally elected officials are responsible for many issues ranging from property tax rates and traffic concerns to drinking water protection and open space preservation. Because most local officials do not find land use and natural resource planning to be the most pressing issues on their agenda, it is often difficult to make well informed on-the-ground regulatory and planning decisions. A solution that would address important planning concerns and meet the growing demand for technical assistance to municipalities on planning and environmental issues was sought. The SBMWA sought a more comprehensive way to evaluate municipalities and help promote positive change on local land use policy. The SBMWA examined a range of existing municipal evaluation methods including rating or ranking towns against each other and checklist-style evaluation programs.

Based on this research, the SWMWA developed its own evaluation program that focused on analysis, constructive feedback, and strategy implementation, which they called the "Program for Municipal Excellence." The SWMWA put together a project team that included experts from planning, policy, law, science and Geographic Information System

(GIS). Having a broad knowledge of environmental and land use tools enabled the SBMWA to provide sound advice on a variety of topics such as stream corridor ordinances, sustainable design techniques for development plans, and natural resource inventories. The SBMWA developed a methodology for implementing the Municipal Assessment Program using an adaptive management approach, amending the program over the course of several years as lessons were learned. The first Municipal Assessment Program was launched in 2001 as a pilot in the Hopewell Township of Mercer County New Jersey.

How the Municipal Assessments Work

The SBMWA works in partnership with local governments on specific strategies designed to help strengthen natural resource protection through local and regional planning and decision making. The program is selective in its process for potential community candidates, choosing municipalities that are have the political will and institutional capacity to get "buy-in" from as many stakeholders as possible. The SBMWA found that establishing a Resolution of Agreement was an ideal way to get full municipal commitment, and designated Point committees were then formed by the municipalities to focus on the analysis and implementation stages of the assessment.

The SBMWA collects as much information, from sources such as local Build-Out analyses or Community Visioning reports, in an effort to complete a thorough review of all pertinent land use laws and policies. When these types of documents are not available, the SBMWA assists the municipality in obtaining them. In addition, the SBMWA conducts a survey of local officials to supplement the principles, objectives, policies, and observations (or a vision statement) of township officials. The survey offers a diversity of perspectives that the SBMWA finds useful when examining the land use plan, ordinances, and practices.

A full analysis of all data collected is conducted by the SBMWA project team. The data includes the results of any surveys, build-out analyses, visioning reports, and other pertinent information such as comprehensive plans, ordinances, zoning and maps, practices and policies. The SBMWA then evaluates this data in the context of the municipality's accomplishments to date, comparing the stated goals with current projections and policies. Any gaps are identifies and customized next steps towards improved implementation, typically in the areas of water quality, housing, traffic, redevelopment, open space, stream corridors, stormwater management, critical habitat, and/or groundwater protection, are outlined.

Recommendations are compiled and presented to the municipality in the form of a "Taking the Next Steps Report." This report is made public and press releases publicize the findings. The report makes a series of recommendations for strengthening community ordinances and the publicity offers recognition of the municipality's efforts.

The Next Steps report helps municipalities work towards building a healthier watershed plan.

The Implementation Phase

All too often, when municipalities participate in an assessment exercise such as this, the day-to-day demands of local government force the final report and recommendations to sit on a shelf. However, in the Municipal Assessment Program, the implementation stage is a codified part of the program's process that begins with assisting municipal decision makers in selecting and prioritizing activities based on community goals and report recommendations.

Additionally, continued partnership and support in areas such as planning resources, regional knowledge and technical assistance are provided to ensure success as recommendations are adopted by the municipality. In fact, SBMWA follow-up continues even after the adoption of the assessment report. This is the essential piece that has created such demand for this program in New Jersey and why it has come to be considered a model for achieving real, on-the-ground land use planning and natural resource protection improvements.

Results of the Municipal Assessment Program

In summary, the following 106 actions were undertaken in the 29 participating communities:

- 24 communities have adopted **Stormwater plans/ordinances**
- 2 communities have adopted **Wellhead Protection ordinances**
- 15 communities have adopted **Stream Corridor Protection Ordinances**
- 4 communities have adopted **Soil Erosion & Sediment Control Ordinances**
- 5 communities have adopted **Zoning Controls to reduce development impacts**.
- 18 communities have adopted **Master Plan (comp plan) revisions, which recognize the need to protect environmental assets.**
- 11 communities have adopted **Steep Slope Protection Ordinances.**
- 5 communities have adopted **Woodlands Conservation Ordinances**
- 6 communities have adopted **limitation on Impervious Surfaces**
- 8 communities have initiated **Water Quality (wastewater) Management Plans**
- 8 communities have initiated **Septic Management** activities
- 4,841 acres of land have been **permanently preserved** in the South Branch Watershed Study area.

Final Thoughts

After years of conducting the Municipal Assessment Program for communities throughout New Jersey, many lessons have been learned and incorporated into the program. One of the most important was the need for flexibility in addressing specific concerns and political needs. Politics can vary greatly from one jurisdiction to another

and some communities were found to be rather unpredictable, particularly in the pace at which they were able to move. For example, some had strong officials, other not; some needed immediate help, while others were more cautious.

The success of the SBMWA's program lies in their ability to understand the conditions of each municipality and to personalize the process according to the unique nature of each location. While completion of the assessment and release of the report is important to the SBMWA, the ultimate goal is to improve ordinances and policies, appropriately address sprawl, and protect natural resources. As the results here indicate, the Municipal Assessment Program has proven to be an effective mechanism for implementing change in local land use policies.

Appendix H: Matrix of Stakeholder Recommendations for Community-Based Organizations

Issue			Stakeholder Recommendation	Additional Stakeholder Comments	Primary Land Type (Urban/Suburban/Rural)	Relevant Geographic Areas	Potential Partners
Assistance to Community-based Organizations	Coordination		Capacity Development	Help organization hire first paid staff member; create strategic plan toward creating a self-sustaining organization	Urban, Suburban, Rural	All	Young/new/small watershed groups (e.g. Lower Shore Land Trust, Sassafras River Association; …)
			Create a Watershed Network based on Smart Growth principles	River Network is a good model	Urban, Suburban, Rural	All	Watershed groups (e.g. Herring Run Watershed Association; Parks and People Foundation; …)
			Create a Coordinator Position	Coordinator would serve as a joint resource for a collaboration of community groups; coordinator would work to integrate land use planning into watershed protection goals	Urban, Suburban, Rural	Baltimore metropolitan region, Eastern Shore of Maryland	Watershed groups, Partnership for Smarter Growth
	Citizen Engagement		Training program for citizen activists	Create a Citizen's Academy to help recruit, train, and organize citizen activism toward land use decision-making	Urban, Suburban, Rural	All	Watershed groups, Wetlands Watch, PEC, Coalition for Smarter Growth, League of Conservation Voters, Waterkeepers Alliance
			Better promotion of success stories	Virginia communities are particularly eager to know how innovative projects have fared in other regions	Suburban	Hampton Roads, Richmond area	Watershed groups, Wetlands Watch, PEC, Coalition for Smarter Growth
			"Blueprint for a Better Region" outreach brochure	Can be used to educate citizens and idenitfy key constiuencies	Rural	Eastern Shore of MD	Land Trusts, Peidmont Environmental Council, Coalition for Smarter Growth
			Build on existing programs	Programs like the University of Richmond Bonner Center for Civic Engagement are good models.	Suburban, Urban	Virginia, Maryland	Center for Watershed Protection, PEC, Partnership for Smarter Growth
			Expand use of volunteers	Draw on the FWS Stream Team model to train citizens to interpret the CWA as it applies to their watershed and conduct water monitoring, assessment, etc.	Urban, Suburban, Rural	All	River Network, Partners for Smart Growth, PEC
	Messaging		Better assess local viewpoints	Conduct messaging research to gain an understanding of how land and water issues are interpreted by various communities throughout the watershed	Urban, Suburban, Rural	All	Water Words That Work
			Outreach campaign on locally relevant issues	Stage a massive campaign to educate and organize PA communities around emerging plans to drill the Marcellus Shale for natural gas	Rural	Central PA	Penn State School of Forest Resources, Penn State Extension
	Land Trust Support		Fund additonal training	Pay expenses for Land Trust staff to attend LTA events or hold the same event locally	Urban, Suburban, Rural	All	Penn State School of Forest Resources; Land Trust Alliance; VaULT
			Fund additonal staff	Need staff for administrative, outreach, and general operation duties	Urban, Suburban, Rural	All	Watershed groups (e.g. Herring Run Watershed Association; Parks and People Foundation; …)
			Fund landowner outreach	Extensive amount of outreach is needed to building trust for just 1 easement; fundings are sorely lacking in this area	Rural	Eastern Shore of MD	Land Trusts (e.g. Eastern Shore Land Conservancy; Lower Shore Land Trust; …)
			Offer seminars on financial planning aspects conservation	Lack of appraisers, CPAs, lawyers for easements; need professional seminars to facilitate decision making for landowners	Urban, Suburban, Rural	All	LTA, Civic groups with appropriate expertise, VaUlt, ESLC
			Offer some longer-term grant programs	Offer grant requiring certain number of landowner meetings, one-on-one assistance with landowners, and completed easements	Rural	All	VaULT, ESLC, small land trusts through PA, VA, and MD

Appendix I: Matrix of Stakeholder Recommendations for Local Governments

Issue		Stakeholder Recommendation	Additional Stakeholder Comments	Primary Land Type (Urban/Suburban/Rural)	Relevant Geographic Areas	Potential Partners
Assistance to Local Governments	Technical Assistance	Education and Outreach	Many local officials change office often and need education on land use issues; funding also needed for local governments to adequately address outreach/education in their communities (growth, land use, water quality)	All (but especially rural areas experiencing rapid growth)	North Central, PA; Lancaster County, PA; Eastern Shore, MD; Frederick and Washington Counties, MD; Howard and Ann Arundel, MD; Hampton Roads, VA; Henrico, Goochland, Chesterfield Counties, VA; panhandle counties of WV	Governments at all levels; civic groups already engaged with the community (e.g. Parks and People Foundation; …)
		Incentives for Program Assessment	Audit local governments to determine how environmental design projects will result in savings in their budgets	Urban/Suburan	All	LGAC, NEMO, watershed organizations, EFC, Center for Watershed Protection
		Financial assistance for implemenation of new codes and ordinances	Develop a grants process to distribute assistance to ready municipalities; create a scorecard to evaluate local community progress	Urban, Suburban, Rural	All	Governments at all levels; CWP, Waterkeepers, or another civic group with appropriate expertise; …
		Consider investing in less vetted approaches	Develop grants for experimenting with untested yet potentially innovative solutions in Bay restoration, smart growth, and sustainability	Urban	Washington, DC	LGAC, DC Dept. of Environment, CWP
		Temporarily or partially fund personnel positions	Provide funds, particularly in planning departments, for staff to seek and manage grants	Rural	Eastern Shore of MD	City/County governments
		Provide funds for the training of municipal officials or to improve access to technical experts	Circuit Rider Program needs to be expanded; add special training opportunities and scholarships for officials to be more willing to attend	Suburban/Rural	Eastern Shore of MD Hampton Roads, Richmond area	Experienced watershed groups (e.g. ESLC, …), City/County governments
		Offer more buffer incentives	Riparian and forst buffers offer the biggest bang for the buck but money is needed to help offset the costs	Suburban/Rural	Eastern Shore of MD, Shenandoah Valley	LGAC, CBT, watershed organizations

Appendix J: Matrix of Issue-Specific Stakeholder Recommendations

Issue		Stakeholder Recommendation	Additional Stakeholder Comments	Primary Land Type (Urban/Suburban/Rural)	Relevant Geographic Areas	Potential Partners
Issue Specific Assistance	Transportation	Invest in additonal research and analysis	Consider a build out analysis or transportation studies to show growth and expected new traffic	Urban/Suburban	Eastern Shore of MD, Hampton Roads, Baltimore, Washington, DC metropolitan area	Larger watershed groups, Environmental Law Center, NCSG, County governments, State government
		Develop a web-based transportation calculator	Calculator shows how many miles traveled between work and home and the costs in terms of time, money, and maintenance	Urban/Suburban	BRAC areas, Washington, DC metropolitan area	Universities, NCSG, consultants
	Planning	Cost-share grants for watershed planning positions	Provide cost-share grants to critical municipal planning departments; similar programs have resulted in the institutionalization of the position	Urban, Suburban, Rural	All	Watershed groups (e.g. Herring Run Watershed Association, Parks and People Foundation, ...), County governments, State government
	Climate & Energy	Encourage long-term planning	Look at the work of various jurisdiction's Climate Change Committee recommendations and work with individual areas to provide studies on linking transportation and climate change	Suburban/Rural	Eastern Shore of MD, Hampton Roads	Southern Environmental Law Center, County governments
	Land Conservation	Fund more trees	Model urban reforestation programs (on private land, with no easement or transfer) that have been successful in Baltimore County	Urban	Baltimore metropolitan region, Richmond, Washington, DC metro area	Watershed groups (e.g. Herring Run Watershed Association, Parks and People Foundation, ...), City government
		Fund easement maintenance	Money is needed for Riparian easement maintenance	Rural	Eastern Shore of MD, Shenandoah Valley	Land Trusts (ESLC, VaULT, Lower Shore Land Trust, ...), county and state government, Shenandoah Valley Network
		Consider the impact of sunsetting programs	Launch a follow-up program to the Tobacco Buyout to encourage landowners to continue protecting their agriculture land	Rural	Eastern Shore	State and local governments
	Stormwater Management	Conduct additional research and analysis	Fund review of existing ordinances and policies; model the work of Southern Environmental Law Center in Albemarle County, VA; assess design standards as they relate to true average rainfall	Urban/Suburban	All	Universities, EFC, Pennsylvania Environmental Council
		Offer forums tied to implementation grants	Help communities reach consensus on Comp Plan needs, watershed plans, and stormwater plans; model the work of Center for Watershed Protection roundtable forums; model the work of Virginia Beach's Green Ribbon Committee of 2007	Urban, Suburban, Rural	All	Center for Watershed Protection, EFC
		Consider regional green infrastructure resource centers	The Green Infrastructure Center is a good model	Urban, Suburban, Rural	All	Green Infrastructure Center
		Assist low-income residents in participating in the solution	Provide water and energy savings devices at cost, using rebates, or for free; provide incentives for LID practices (rain barrels, tree plantings, etc.)	Urban, Suburban, Rural	All	Watershed groups (e.g. Herring Run Watershed Association, Parks and People Foundation, ...), City/County government
		Consider a certification program	River Friendly Certification Program (Stony Brook-Millstone Watershed Association is a good model)	Urban	Baltimore metropolitan region	
		Provide grants for urban "green alleys" programs	Replicate success of Green Alley program in Chicago	Urban		