Environmental Finance Center Network
University of Maryland - Region 3
1999 Annual Report

ANNUAL REPORT
1999

Environmental Finance Center
University of Maryland
U.S. EPA Region 3

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EXECUTIVE OVERVIEW

Summary

The Environmental Finance Center (EFC) at the University of Maryland, the second such center to be established in the country, serves the states of Maryland, Virginia, Pennsylvania, West Virginia and Delaware (EPA Region III). The focus of the Maryland EFC has fallen primarily on the Chesapeake Bay watershed, a sprawling 64,000 square mile area that encompasses much of the region. The problems found in the Bay watershed, from sewage treatment to agricultural runoff to suburban sprawl, represent the very issues faced by communities in the region and addressed by the EFC.

During the past year, the Maryland EFC has focused on such issues as paying for upgraded sewage and septic systems, preserving open space and forested buffers, and reinvigorating urban neighborhoods and landscapes. A special interest over the long term has been assisting small towns and communities in finding effective ways to pay for the environmental services they need to protect their health and to assure a high quality of life. The EFC's strategy calls for drawing on the widest talent base possible, throughout the University System of Maryland and beyond. A special strength has been the ability to pull together experts from a broad range of backgrounds, including banking and financial services; federal, state and local government; academia; and technical and consulting services. From the outset, the EFC has emphasized creative thinking, and has sought out innovative ideas and fresh perspectives when taking on each new issue.

Facilities and Expertise

The problem of environmental finance and management requires an integrated, interdisciplinary, and even transdisciplinary approach. The University of Maryland's Coastal and Environmental Policy Program provides a powerful network for mounting such an approach. The Coastal and Environmental Policy Program (CEPP) is comprised of five units of the University System of Maryland: the Maryland Sea Grant College (home of the Environmental Finance Center), the School of Public Affairs, the Center for Environmental Science, the College of Agriculture and Natural Resources, and the School of Law.

CEPP's investigation into environmental finance and the formation of the Environmental Finance Center (EFC) began in 1992 with support from the U.S. EPA. The University of Maryland Environmental Finance Center is now one of only eight Environmental Finance Centers in the country. The EFC's efforts have focused on both point-source pollution issues, such as alternative methods for financing waste treatment facilities and innovative utility rate structures, as well as nonpoint-source pollution issues, such as storm water management, stream corridor buffers and agricultural best management practices.

Accomplishments

Charrettes

Part of the EFC's goal is to provide assistance and advice to state and local governments on issues related to environmental finance. One way to achieve that goal is to advise local officials in a "charrette" format. The charrette process, refined and adapted by the University of Maryland EFC, employs an advisory panel of finance, planning and engineering experts, as well as federal and state officials, who provide local decision-makers with solutions to their environmental finance problems. The charrettes provide a forum for frank discussions between local officials and experts about financing, planning and management challenges experienced by communities in meeting environmental and quality-of-life demands. The charrette process is a cost-effective way to address

unfunded mandates and further the EPA's strategic initiative on Partnerships. In addition, this partnering approach was one of EPA's key proposals for the National Program Review.

Since its establishment in 1992, the EFC has arranged charrettes that have expanded its understanding of issues related to nonpoint-source pollution, such as urban storm water runoff and agricultural nutrient runoff. Many charrette participants have been faced with the challenge of identifying cost-effective and equitable financing solutions to environmental concerns that will not impede economic development in their community. Indeed, the question of economic viability and environmental sustainability is a key focus of the EFC's work. One of the important challenges identified during the charrettes is the need to convince businesses and homeowners to "pay now" rather than to "pay later," recognizing that paying later will certainly mean higher costs.

An important result of the charrettes is the renewed commitment by communities to dedicate additional time to their environmental finance problems. The EFC has found that, frequently, a charrette's highest and best purpose is to facilitate a meeting of the stakeholders of an environmental finance issue that might not otherwise take place. The EFC receives many compliments about its ability to convene a meeting of disparate stakeholders, and we expect to continue to provide this vital service to local governments.

During 1999, the EFC produced a video about the charrette process and helped plan, and participated in, a "pre-charrette" with the Center for Chesapeake Communities, and a charrette for Northampton County, Virginia (see below). The EFC continues to solicit interest in conducting charrettes within the Bay watershed and within Region III. As always, it is important to work closely with communities to ensure that a charrette is the right tool for a community during its policy-making and implementation process. Below is a listing of charrettes conducted in 1999, as well as charrette candidates with whom we are currently working.

Charrettes conducted during 1999

Cape Charles, Northampton County, VA
Issue: Financing an Eco-Industrial Park

Northampton County, Virginia, a county of 359 square miles and 13,000 residents, has developed for hundreds of years in isolation by virtue of its location at the southern tip of the Delmarva Peninsula. Separated from mainland Virginia by the 23-mile Chesapeake Bay Bridge and Tunnel, it occupies the southern half of Virginia's Eastern Shore. Bounded by 225 miles of shoreline, the county encompasses some 134,000 acres of prime cropland, saltmarsh and forest. The county is a place rich in natural, historical and cultural assetsï¿½beaches, islands, marshes, woodlands, tidal creeks, fish and shellfish, birds and wildlife, and historic villages and farms.

Founded in 1886, Cape Charles was originally a Chesapeake Bay port town. Barges and ferries worked in tandem with the New York, Philadelphia and Norfolk Railroad to connect the County with the town of Norfolk, Va. across the bay. As a result, the city's commerce thrived well into the 1950's. With construction of the Chesapeake Bay Bridge and Tunnel in 1965, however, the railroad and the ferry services shut down. Today there are only two short freight trains delivering cargo to the town each day. While environmental quality has remained strong, the town's economy has suffered.

The poor economic and social conditions of Northampton County are well documented. Over 27% of the residents live in poverty (compared with 10.2% statewide) with an average annual unemployment rate of approximately twice that of the rest of the State. 30% of its residents earn less than $10,000 per year and for the fifth consecutive recorded year, Northampton has the lowest median gross income in the Commonwealth of Virginia. Poverty is even more concentrated in the African American community, where 64% of female head of households with children under the age of 18 live below the poverty level and 70% where children are under the age of five.

Over 30% of the housing stock was built prior to 1940, 12% of the housing units lack indoor plumbing and 8% lack complete kitchen facilities. At least 9% of the homes do not have a central heating system, and 10% of the

homes do not have public sewer or septic tanks and must use cesspools as a means of sewage disposal.

In general, Northampton faces not only traditional rural handicaps such as sparse population and limited tax base, but more universal community challenges of deteriorating infrastructure, limited resources and lack of personnel.

The Challenge for Northampton County

Over the last two decades, the county has lost much of its traditional seafood and agricultural processing industry. In an effort to revitalize the local economy, Northampton County representatives began to explore redevelopment opportunities which would not compromise the environmental integrity of their fragile landscape.

In 1994 the Port of Cape Charles, in Northampton County, was chosen by the President's Council on Sustainable Development as the site for one of the nation's first "eco-industrial parks". The main purpose of the Sustainable Technologies Industrial Park is to demonstrate the potential of energy-efficient, water-conserving, and nonpolluting industry. Specifically, the Park seeks to provide support for industrial, job-creating opportunities to:

- ï¿½ Support existing local enterprises
- ï¿½ Attract new ecologically compatible enterprises
- ï¿½ Create new ecologically compatible industries
- ï¿½ Offer a national model for environmentally sound coastal development

The first phase of development of the industrial park was completed and fully leased in 1999. Building One models the standards of the National Green Building Council, being more energy efficient, more sensitive to the environment and more cost effective than traditional structures.

Northampton would now like to begin construction of Building Two but lacks the necessary financial resources. Since traditional capital sources such as banks are not familiar with the concept of eco-industrial parks, the Park is at a disadvantage when attracting financing. The estimated cost for Building Two, a flex office/manufacturing building of approximately 32,000 square feet with related site improvements and infrastructure, is $2.5 million. The Sustainable Technology Park Authority will own the building and space will be leased to one or more tenants.

EFC designs and develops a charrette in cooperation with Community
During June, the EFC conducted a charrette with the Sustainable Technology Park Authority and the Industrial Development Authority of Northampton County and its Incorporated Towns. The basic issues addressed during the charrette included:

- ï¿½ What types of financing are available for the project and from what sources?
- ï¿½ What will be required of the owner/developer to access various sources of funding?
- ï¿½ Based on the goals and characteristics of the project, what might the ideal financing package look like?
- ï¿½ What would be the best strategy and next steps in accessing financing for the project?

The EFC arranged for a panel of "experts" to participate and advise Park Authority and Industrial Authority representatives during the charrette. Panelists included:

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Timothy Hayes
Executive Director
The Sustainable Technology Park Authority
Cape Charles, VA

Dan Kuennen, Director
UMES Rural Development Center
University of Maryland Eastern Shore
Princess Anne, MD
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Greg Manter
Eastern Shore Economic Development Commission
Accomac, VA

Margaret Miner
USDA Service Center
Accomac, VA

Tory McGowan, Project Manager
Virginia Small Business Financing Authority
Richmond, VA

Tina Neal
Ferris, Baker, Watts, Inc.
Richmond, VA

Spencer Nottingham
Crestar Bank
Cheriton, VA

Steve Parker
Director of Economic Programs
The Nature Conservancy
Nassawadox, VA

Dick Schreiber, President and CEO
Virginia Eastern Shore Corporation
Chincoteague, VA

Dan Slone
McGuire, Woods, Battle and Boothe, LLP.
Richmond, VA

Ned Smither
First Union Capital Markets
Richmond, VA

Steve Warren
Branch Manager, Nations Bank
Cape Charles, VA

Charrette participants included "Industrial Development Authority of Northampton County and its Incorporated Towns" (IDA) members:

Bruce L. Evans, Director
Industrial Development Authority
Cape Charles, VA

Lenora Mitchell, Secretary
Industrial Development Authority
Cape Charles, VA

Henry J. Heneghan, Jr., Treasurer
Industrial Development Authority
Cheriton, VA

Julie Badger, Director
Industrial Development Authority
Machipongo, VA

Janice Williams, Northampton County Administrator
Industrial Development Authority
Eastville, VA

Cela Burge, Town Manager
Industrial Development Authority
Town of Cape Charles
Cape Charles, VA

Richard L. Hubbard, Chairman
Industrial Development Authority
Cape Charles, VA

John W. Nottingham, Jr., Director
Industrial Development Authority
Cape Charles, VA

Elizabeth W. Hoover, Vice Chairman
Industrial Development Authority
Cape Charles, VA

Frank Wendell, Jr.
Industrial Development Authority - Ex-Officio
Cape Charles, VA

Recommendations and observations generated during the charrette included:

ï¿½ The Technology Park needs a business plan in order to convey the vision and intent of the Park to potential investors, creditors, and businesses. Several business plans could be written, targeted to each type of investor. Only those investors and businesses which support the "sustainable" nature of the endeavor should be pursued.

ï¿½ There needs to be a market analysis of the region, including other similar industrial parks and their incentives package, transportation and rental costs, employee demographics, and strength/weaknesses of the Cape Charles location.

ï¿½ It was suggested that the Technology Park develop a strong relationship with a commercial real estate firm which would assist in identifying suitable businesses for the park and help in marketing.

ï¿½ Enhanced marketing efforts are needed beyond the assistance of the County Economic Development Corporation.

ï¿½ A marketing package of information should be developed for potential tenants, which should include financing options available such as USDA-guaranteed loan programs available through local banks.

ï¿½ There is a need to upgrade infrastructures, especially the waste water treatment plant.

ï¿½ A financing strategy should be developed that shows what role each type of funder could play.

"**Pre-charrette" for Site Planning Demonstration Project**

Issue: Sustainable development building and design techniques

In order to change the direction of conventional design, pattern and density of development and its impacts on local quality of life and the environment, there must be on-the-ground examples of development techniques that local governments and the development community can embrace.

During 1999, the EFC worked with the Center for Chesapeake Communities and the Chesapeake Bay Program on a project which aimed to demonstrate the benefits of smart growth and sustainable development in the Chesapeake Bay region. This project, the *Site Planning Demonstration Project*, began with the selection of a parcel of land in Centre County, Pennsylvania, which will be developed as residential housing using sustainable development techniques.

At the suggestion of the EFC, a pre-charrette was conducted which brought together planners, developers, architects, landscape architects, realtors and local government officials. The pre-charrette was designed to introduce stakeholders to opportunities for innovation in site design and building techniques, and to discuss

ideas which were later incorporated into a design charrette.

Communities working with the EFC as potential Charrette candidates

Chesapeake City, Maryland
Issue: Environmental infrastructure financing and "smart growth" practices
The Chesapeake and Delaware Canal, which provides an important shipping channel from Delaware Bay to the Port of Baltimore, bisects the town of Chesapeake City, Maryland. A consequence of the canal is that the town requires two separate sets of water and sewer infrastructure to serve each side. This arrangement has created inefficiencies, perhaps the most pressing of which is the need for more capacity at the southern waste water treatment plant.

The EFC has provided information and advice to the town for more than a year, and during 1999, met with the town manager and members of the water committee to discuss funding options for expansion of water and sewer services. During the meeting, it was decided that the town needed to gather additional information, such as future growth plans, current contract requirements with the private firm running the treatment plant, and cost information. After collecting additional information, the EFC will begin to develop plans for a charrette for the town.

Countryside Stewardship Exchange Program
Issue: Implementation of Panel recommendations

In coordination with the Chesapeake Bay Program's Land, Growth and Stewardship Subcommittee, the EFC has offered to continue the work of the International Countryside Stewardship Exchange Program (Exchange) by offering charrette opportunities to participant communities. The Exchange brings experienced professionals from Europe and the United States to meet with local community leaders to address concerns about development, conservation and other related issues. The experts visit a community for one week, then deliver a set of recommendations for the community to consider in their attempts to harmonize community growth and environmental protection.

In early 1999, the EFC Coordinator met with Rosemary Cooper of the Glynwood Center. The Glynwood Center is the lead sponsor of the Exchange program in North America. The EFC was invited to speak about financing at a meeting of the 1998 Exchange communities, South Anne Arundel County (MD) and Richmond and Essex Counties (VA). After several conversations with the coordinators of the two communities, it was agreed that it was too early to begin the charrette process. The communities must first prioritize the recommendations from the Exchange panel and then identify key community leaders to begin gathering information. To assist in that process, the EFC provided financing information and advice to each community.

After engaging in a prioritization process, the EFC Coordinator met with South County (MD) Exchange Co-Coordinators Lizabeth Shay and Mary McHenry to discuss financing opportunities for several prioritized projects. The projects, outgrowths of recommendations from the Exchange report, include:

ï¿½ Work with Southern High School to develop a book of photographs about "A Day in the Life of South County."

ï¿½ Develop a project with high school students to establish a greenway along the Patuxent River, near their school.

ï¿½ Create a "Sustainable Business Roundtable" where all businesses in the area would develop a shared vision of the economy of South County.

ï¿½ Co-host a workshop to inventory all of the historic, natural and cultural resources in South County.

In addition to providing financing ideas and materials to help support these initiatives, the EFC assisted the

South County Exchange in thinking of ways to support their own ongoing operations, including the establishment of a community "Resource Room." The EFC continues to communicate with both Exchange communities, as well as the Glynwood Center, and is prepared to host a charrette or provide other needed assistance.

The Bay Ridge Trust (MD)
Issue: preserving the Bay Ridge woods

The Bay Ridge Trust, in existence for ten years, has been involved in preserving the Bay Ridge woods and other preservation efforts. Bay Ridge, located on the Annapolis Neck, about five miles southeast of Maryland's capital, is a highly developed area with only a few large undeveloped parcels still left. Pressure to develop these last parcels is great, but the Bay Ridge woods are particularly important. The woods include 84 acres of riparian forest and 11 acres of beach along the Severn River and Chesapeake Bay and provide a host of ecological value, from aquifer replenishment and pollution buffer to habitat.

The Bay Ridge Trust would like to conduct a charrette to explore ways in which to work with the private owners of the Bay Ridge woods to perhaps place an easement on the property. At the end of 1999, the EFC met with Trust representatives to begin to plan for a charrette in early 2000.

The Elizabeth River Project (VA)
Issue: retrofitting urban landscapes for stormwater management

The Elizabeth River Project, a nonprofit organization incorporated in 1993, was founded "to form a partnership among the communities and all who earn a living from the river, to raise appreciation of its economic, ecological and recreational importance, and to restore the Elizabeth River system to the highest practical level of environmental quality" (mission statement). The Elizabeth River watershed, which includes the highly urbanized areas of Norfolk, Portsmouth, Chesapeake and Virginia Beach, faces an uphill battle in managing nonpoint sources of pollution from stormwater runoff. Because of the lack of open land and high cost of implementing traditional stormwater management techniques, such as retention ponds, the Project would like to conduct a charrette to explore options and alternatives. The EFC has begun to develop a plan for conducting a charrette with the Elizabeth River Project for early 2000.

List of Charrettes Conducted Since 1993, the University of Maryland EFC has conducted charrettes addressing such issues as waste water and drinking water facility upgrades/expansions, determining sites for new landfills, storm water management, access to capital for investment in pollution prevention practices, urban revitalization and uses for revolving funds. The charrettes and their topics are listed below. The full text of the case studies drawn from these charrettes can be found in past EFC Annual Reports as well as on the University of Maryland EFC website at www.mdsg.umd.edu/MDSG/EFC

Locality	Jurisdiction	Population	Project
Ellendale area,DE	Unicorp.	1,050	Failing septic
South Bethany,DE	Town	600	Storm water run
Berlin, MD	Town	2,616	WWTP for new de
Cuckold Creek,MD	Watershed	n/a	Managing growth
Deer Park,MD	Town	419	No wastewater t
Denton, MD	Town	2,997	WWTP for new de
Federalsburg, MD	Town	2,365	Install sewage
Indian Head, MD	Town	4,000	Storm water man
Manchester, MD	Town	2,810	Sewer construct
Port Deposit, MD	Town	685	WWTP for new de
Snow Hill, MD	Town	2,217	WWTP to encoura
Taneytown, MD	Town	3,695	WWTP for new ho
Long Eddy, NY	Hamlet	72	Failing drinkin
City of York, PA	City	42,000	Sustainable red
Fauquier, VA	County	48,741	Failing septic
King William, VA	County	10,913	WWTP for land-u
Loudoun, VA	County	102,100	Locating solid
Northampton Co.,VA	County	12,800	Sustainable Tec

Starlit Ponds, VA	Community	450	Failing storm w
National scope	n/a	n/a	Access to capit
Chesapeake Reg.	n/a	n/a	Est. environmer

(WWTP= waste water treatment plant upgrade or expansion)
(n/a= "not applicable")

Charrette Video

Using the EFC's experience conducting over twenty charrettes, the EFC completed a video about the charrette process, which will be used as an educational resource for communities and organizations interested in using the charrette as a problem-solving tool. The video premiered at the September Annual EFC Directors' Meeting in Boise, Idaho and was very well received.

The EFC is continuing work on the accompanying handbook which, together with the video, will be used to guide communities through the charrette process. The handbook is in final draft form and will be produced during the spring.

The handbook and video, made available as a set, will be distributed to a wide audience, which will include our web site and brochures, local government associations, university public education programs, citizen groups and business organizations.

Participants in the Charrette video process, including interviewees, were:

- ï¿½ Jag Khalsa, President, Starlit Ponds (VA) Homeowner's Association
- ï¿½ Terry Fearins, Denton (MD) Town Manager
- ï¿½ Robert Stickels, Sussex County (DE) Administrator
- ï¿½ Sal Aiello, South Bethany (DE) City Councilman
- ï¿½ Eric Menzer, Director, City of York (PA) Office of Economic Development
- ï¿½ George Ames, USEPA, Chief, Environmental Finance Branch
- ï¿½ Vera Hannigan, USEPA, Environmental Finance Branch

Technical Assistance, Training and Education

Maryland OSDS Task Force

The cumulative impact of septic systems, or conventional on-site sewage disposal systems (OSDS), on water quality and on Smart Growth initiatives is becoming a major concern in Maryland. The US Environmental Protection Agency reports that OSDS effluent is the most frequently cited source of drinking water contamination nationwide. Conventional OSDS (septic systems) were designed to remove solids and pathogens from wastewater, but because of improper or inadequate maintenance and operation, or improper siting and installation, septic systems pose a threat to our heath and our environment.

In addition, OSDS effluent is high in nitrogen, a major threat to the Chesapeake Bay, other tidal waters, and reservoirs. Conventional systems, however, were never designed to remove nutrients such as nitrogen and phosphorus. Recently, advanced technologies have been developed (non-traditional systems) which greatly enhance the ability of septic systems to remove nutrients. Yet, septic systems have received far less attention than Maryland's nationally recognized efforts to address discharges from wastewater treatment plants and agricultural lands. In recognition of the State's obligation to the citizens to ensure that public health and the health of the environment is protected, a Task Force of local government representatives, developers, and

environmentalists was formed to identify management practices and policies to reduce OSDS impacts. The EFC Coordinator was invited to serve on this Task Force.

The OSDS Task Force convened their first meeting in February 1999 and subsequently met monthly, while subcommittees, focusing on education, conventional OSDS systems, and non-traditional OSDS systems, met twice a month. The first order of business was to provide comment on draft regulations by the Maryland Department of Environment (MDE) which were completed in Spring, 1999. After the regulatory comments were submitted to MDE, the OSDS Task Force began to develop draft recommendations for a final report to the Bay Cabinet.

The EFC played a pivotal role in researching and presenting a range of options for managing OSDS. Until recently, community-based management of septic systems had not been pursued at the local level. However, as more is learned about the nutrient contributions of septic systems to the environment, there is increasing recognition that more must be done to manage this source of pollution, especially in the face of increased growth pressures and nutrient management caps (e.g., TMDLs and Chesapeake Bay Agreement policy). Traditional systems do not provide the level of nutrient attenuation that nontraditional systems do, but nontraditional systems are more maintenance-intensive.

An option for more comprehensive management of septic systems, presented by the EFC to the Task Force, is through the use of "management districts," areas where inspections, maintenance and education can be coordinated to serve groups of septic systems. The EFC recommended that Maryland should consider mandatory management districts or management agreements for Areas of Special Concern, community and shared systems, and for newly installed or repaired systems which utilize non-traditional technologies (including nutrient reduction technologies).

Because Areas of Special Concern, community and shared systems, and systems which utilize non-traditional technologies present challenges for maintenance, monitoring and education, the EFC recommended that these types of systems should be maintained in the future by a "management entity" (formal organization that performs several tasks), with oversight by the local health department. Owners of these systems would be required to establish a contract (management agreement) with a management entity. An interesting option would be to establish a watershed-based management district for those systems in close proximity to each other.

Management agreements with homeowners would be fee-based and would cover the costs of operations. Management districts would charge fees and assess fines, and could receive funding from the State Revolving Fund (SRF) and other programs, and from appropriations from the General Assembly. Low-income, elderly and other system owners in need could receive support for all or part of the costs of repair and replacement of failing systems. Remedies for failure to pay fees or repair systems might include fines and penalties, a priority lien on the property, shutting off other utilities (electric, water), civil action in small claims court, or other ideas.

For those areas and communities not designated as "areas of special concern," which have conventional (existing or new) septic systems, a program would be developed to offer financing incentives to form management districts. Because the repair and replacement of failing septic systems is only part of the management process, and education and knowledge about proper system use and maintenance is vital, repair and replacement should be coupled with education and together be supported with financial incentives.

After the Task Force deliberated on the often contentious issues, a final report drafting committee was selected. The Coordinator of the EFC was asked to serve on the drafting committee to prepare the final draft for Task Force approval. The drafting committee worked throughout July and August, fine-tuning the often delicate and precise language of the report.

After ratification of the report by the full Task Force, in the fall of 1999, Task Force representatives presented the final report to the Bay Cabinet, composed of the Secretaries of the Departments of Environment, Natural Resources and Office of Planning. During the meeting, the Coordinator of the EFC described several

management options contained in the Recommendations section of the report. The report was well-received and formed the basis of proposed legislation being developed for the next session of the Maryland General Assembly.

The EFC continues to provide information to interested parties about options available for managing septic systems and ideas about innovative financing for septic systems repair and replacement. During the fall, the EFC presented information to the second Governor's State Septics Task Force about septics management systems in other states. In addition, the EFC developed and provided details on septics management programs in other states to Ronald A. Guns, Chair of the Maryland General Assembly House of Delegates Environmental Matters Committee. Working in coordination with Maryland Department of the Environment, the EFC is prepared to provide information about financing and management of septics systems to those who may request it during the General Assembly session, beginning in January 2000, and beyond.

Maryland Cap Policy workgroup

In the 1992 Amendments to the Chesapeake Bay Agreement, all jurisdictions agreed to reduce nitrogen and phosphorus loads by 40% by the year 2000 (using 1985 as a base year), and to "cap" these loads so that nutrient reduction progress would not be eroded by future growth in loads. This means that any increase in nutrient load associated with expansion or development must be completely offset.

During 1999, the Chesapeake Bay Program developed cap policies and identified issues and options for states to consider in developing their cap own policies. The Bay Program's Principal Staff Committee has directed all the Bay States to develop cap policies by December 31, 2000. To that end, Maryland has formed a Maryland Cap Policy workgroup, and has invited the EFC to serve on the workgroup. The workgroup convened in September and will meet monthly to develop a series of policy recommendations to help the state control and reverse increases of nitrogen and phosphorus.

The mission of workgroup is:

"To develop a Maryland Nutrient Cap Strategy by December 2000; and a final Cap Strategy by 2001. This strategy should include:

- ï¿½ an explanation of the current cap and its components;
- ï¿½ an estimate of expected growth in loads to 2010 and 2020;
- ï¿½ an allocation of loads (to the county level, by point and nonpoint source);
- ï¿½ an outline of (federal, state, local and private) programs, practices and strategies that will be used to maintain the cap. These fall into three basic categories:
  - ï¿½ offsets
  - ï¿½ BMP mitigation
  - ï¿½ prevention
- ï¿½ an implementation strategy describing how these tools will be used;
- ï¿½ an analysis of what funds will be needed to implement the strategy; and
- ï¿½ a tracking strategy to ensure that the cap is maintained"

The EFC will participate by providing information about offset options, particularly trading methods being explored and implemented in other parts of the country.

Financing Strategies for Maryland's Coastal Bays Program

Both the Governors' nomination and U.S. EPA's acceptance of the Maryland Coastal Bays for inclusion in the National Estuary Program represented a critical first step in an ongoing partnership among those governments and citizens interested in a healthy and productive estuarine ecosystem in Worcester County. Because of continued interest in the program by county government, municipalities, and local citizens, the program's federal partners have invested more than one million dollars in planning and coordination activities necessary to

establish and solidify this partnership.

From the standpoint of financing, an emphasis on enhancing the local economy and promoting the area's heritage means that many actions will require funds generated within the watershed. During the year, the EFC worked with the Coastal Bays Program and the state's Department of Natural Resources to develop a financing strategy to support the Program's Comprehensive Conservation and Management Plan (CCMP). Part of this assistance included developing a list of alternative financing techniques useful to managers implementing the Coastal Bays Program.

In addition, the EFC Coordinator met with Coastal Bays Program representatives and Maryland State Revolving Fund (SRF) administrators to discuss ways in which the Coastal Bays Program could utilize the SRF. In 1997, with the assistance of the EFC, the Maryland SRF had been broadened to allow for loans to the private sector for a wider variety of water quality efforts, with particular emphasis on non-point source pollution control activities. The Coastal Bays Program is interested in helping to broaden the reach of the SRF to fund such initiatives as septic system-owner education, stormwater management using non-structural best management practices (BMPs), and enhanced technical assistance for pollution prevention for businesses. It was agreed that the SRF was prepared to support a variety of initiatives detailed in the CCMP.

The EFC continues to provide assistance to the Coastal Bays Program and has committed to support the effort in any way, including providing charrette opportunities to explore ways in which to finance identified initiatives.

Land Trust Assistance

Increasingly, land trusts are becoming a primary vehicle for preserving lands valued for environmental, scenic, historical and cultural values. In addition, they bridge the gap between public incentive programs for preservation and landowners interested in conservation options. As preservation vehicles, small land trusts in particular are often burdened by overwhelming demands on their limited resources, which presents an obstacle to their ability to rapidly respond to preservation needs within their communities. Specific needs of small land trusts include greater outreach capability, increased organizational capacity, better information about current preservation techniques, and more targeted marketing of their programs and goals.

The EFC has initiated a series of projects designed to assist community land trusts in financing land acquisition programs, stewardship responsibilities, landowner education and outreach efforts and operational expenses.

In February 1999, the EFC developed and conducted a roundtable with land trusts representing a wide range of expertise and interests. At issue was the loosely coordinated and reactive approach to land preservation by small land trusts which can result in piecemeal preservation. The roundtable was convened to generate ideas about ways in which to assist small land trusts in a more coordinated approach to land preservation. A coordinated approach would result in the preservation of contiguous parcels, such as forested buffers and wetlands along a stream corridor, and open space, which could be restored for wildlife habitat purposes.

Participants included:

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Gary Allen
Center for Chesapeake Communities
Annapolis, MD

Grant Dehart, Program Open Space
Maryland Department of Natural Resources
Annapolis, MD

Lee Epstein
Chesapeake Bay Foundation
Annapolis, MD

Rob Etgen
Eastern Shore Land Conservancy
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Queenstown, MD

Emily Grafton
Canaan Valley Institute
Davis, WV

Mary Heinricht
American Farmland Trust
Washington, DC

Russ Johnson
Heritage Conservancy
Doylestown, PA

Jennifer Koss
Chesapaeke Bay Program
Annapolis, MD

Lori Lynch
University of Maryland Agriculture & Resource Economics
College Park, MD

Debi Osborne
Trust for Public Land
Washington, DC

Jim Smith
Mathews County Land Conservancy
Mathews, VA

Mick Womersley
Maryland Mountain Trust
Lonaconing, MD

Financing and management recommendations generated during the roundtable where grouped into six categories and included:

1. Economies of Scale: There needs to be a way to distribute the costs associated with managing small parcels of land. One suggestion is to look at insurance models.

2. Outreach Partnerships: More effective partnerships would increase the participation in land preservation. One suggestion included using established networks like farm bureaus or other farmer groups to encourage co-stewardship of private lands AND to help reach property owners before they sell to developers. Partnerships would also increase the ability to educate different stakeholders, including elected officials.

3. Organizational Capacity: Preservation organizations suffer from lack of start-up and ongoing funds. Maintenance and membership fees may discourage participation. Suggestions include resource sharing (staff and equipment) among groups, partnering with established organizations (if they are willing). Private foundation of philanthropic funds may be a valuable resource, but effective marketing is crucial (see below).

4. More Information: Organizations need technical assistance to facilitate land preservation, especially as they negotiate the process of evaluating sites for preservation. Access to case-studies and syntheses of important issues would be helpful. Coordination of existing information would save time and effort for individual groups (so they don't "reinvent the wheel").

5. "Marketing Makeover: Communicating the Vision": Organizations need to better communicate their goals. Different marketing strategies for different situations would be useful because people are motivated by different reasons for preservation.

Communicating the Program: Improved marketing of the ability of the organization may attract more people. Also, organizations need to respond to misinformation about land preservation that discourages land

preservation.

Other land trust initiatives completed during the year included development of a list or "matrix" of foundation support for land trust operations, education and land acquisition efforts. In addition, we also compiled information about public programs which will be used to develop a more comprehensive land trust funding matrix.

The EFC continues to collaborate with Canaan Valley Institute (WV) about working with West Virginia land trusts. Two events were developed and then postponed during the year: 1) a charrette for a group of small West Virginia land trusts interested in cooperating on administrative and informational needs; and 2) a workshop training session on financing concepts and sources for Land Trust of the Eastern Panhandle (WV). We continue to work with these organizations to reschedule these events.

Riparian Forest Buffers initiative

In an attempt to improve water quality in the Chesapeake Bay region, local governments are faced with the challenge of restoring degraded stream buffers on 50,000 miles of streams. Given the range of functions and values associated with stream buffer zones, there are many ways to recoup revenues presumed "lost," which is often associated with limiting development in the riparian zone. In some instances, recouped revenues may be realized in savings, such as not having to build a drinking water treatment facility. In this case, the natural buffer keeps a drinking water source clean without having to build an expensive treatment facility.

To assist local decision-making in efficient and effective means for financing the restoration, preservation and maintenance of these forested stream buffers, the EFC developed a handbook of techniques for recouping revenues, including economic development opportunities.

The objectives of the Forest Buffer Handbook are to:

ï¿½ Provide examples of ways to recoup revenues presumed "lost," which is often associated with limiting development in the riparian zone.

ï¿½ Analyze and evaluate methods for financing the preservation of stream buffers not already discussed in the prevailing literature

In our survey of communities conducted a year ago, we sought to discover:

ï¿½ How communities addressed the lost opportunity of tax-based revenue;
ï¿½ The motivation behind the preservation (whether economic, quality of life, etc.);
ï¿½ Why other communities have not implemented land-use restrictions in the stream buffer zone.

The EFC contacted local governments, Federal agencies and other organizations looking for contacts and leads at the local governmental level. From that we were able to talk to many communities that have actively pursued some form of riparian zone protection or enhancement. The riparian zone is being preserved for a variety of reasons, but we found little documentation of fiscal analysis or fiscal impacts of riparian zone preservation. This may be because many buffer preservation initiatives are new and the benefits are long-term or not independent from other factors (such as flood protection that uses buffers and structural techniques.)

During the year, the EFC developed an outline for the handbook along with examples of economic incentives and financing techniques for restoring buffers. Some of the findings and issues covered in the handbook include:

1. Fiscal benefits: how communities address opportunity costs

ï¿½ The costs to local governments associated with restoring stream buffers include capital expenses, property maintenance costs, legal costs and decreased property taxes. These have partly been

quantifiedï¿½for instance, when budget caps, program expenses or tax benefits are proscribed or limited to a particular dollar amount.

ï¿½ The benefits to local governments of increasing the riparian forest buffer zone are not well documented. Several anecdotal studies suggest cost savings or potential qualitative benefits down the road, but dollar figures are difficult to find.

2. Motivation to protect riparian areas

ï¿½ On a national and regional scale, an initial driving force was USDA initiatives to reduce soil erosion. Currently, water quality benefits are being emphasized as stormwater management and flood control benefits are highlighted. Compliance with Clean Water Action Plan requirements has further focused attention on the riparian zone and water quality.

ï¿½ At the local level, governments are becoming more active in riparian zone protection because:

ï¿½ Citizens are demanding clean water, open space, habitat, recreation, (through referenda).

ï¿½ Government responsibilities include flood management and source water protection for drinking water quality.

ï¿½ Regulatory compliance requirements such as the Clean Water Act, Endangered Species, and more.

ï¿½ Recently, riparian protection is discussed within "smart growth" or "sustainable development" or "watershed protection" strategies.

In the handbook, we have divided "buffer benefits" into four categories which translate into revenue streams by either avoiding costs or generating costs. The four "buffer revenue streams" are four sections in the handbook and each identify and describe a number of elements or techniques. The four sections include:

ï¿½ Private enterprise based on the riparian zone
ï¿½ Quality of life factors that affect property value and an area's overall demand
ï¿½ Regulatory requirements that are addressed by protecting the riparian zone
ï¿½ Public infrastructure-related costs and benefits

Within each section, we describe the actual or potential revenue effect. Under each of the "elements," we describe:

ï¿½ The types of costs and benefits related to each
ï¿½ The types of financing mechanisms available
ï¿½ Contacts from areas using these strategies.

The handbook, in final draft form, will be produced during spring 2000.

Tangier Island, Virginia

Tangier Island in Virginia is a marshy archipelago located in the middle of the Chesapeake Bay, 20 miles from the mouth of the Potomac River and an hour and a half from both the Western and Eastern Shores of Maryland and Virginia. Tangier's unique watermen community of 650 people has been fairly isolated for the last 200 years. Over 90% of the men on Tangier derive their sole source of income from fishing the Bay. With a fully exploited blue crab fishery, Tangiermen will soon be unable to support their families solely from this income source. Currently, women's employment opportunities are extremely limited.

In 1998, the Tangiermen developed a *Stewardship 2020 Vision* plan. At the request of the Tangier Watermen's Stewardship for the Chesapeake (TaSC), the EFC was asked to assist the Tangiermen in one or more aspects of the Sustainable Development section of the Stewardship plan related to income generation on the island. Tangier Island is interested in environmentally benign businesses, such as eco-tourism, to help preserve the unique island environment and to create small-scale economic development for the community.

In 1999, in collaboration with TaSC, and a graduate student in the Eco-tourism Program at George Washington University, the EFC assisted in the development of a draft strategic plan for the community. The EFC plans to assist in the development of a marketing and business plan for the island as well. Important issues to be addressed include integrating businesses which are in harmony with community values and the vision plan, accurately assessing market demand and start-up cost requirements, and targeted marketing of the island.

Wetlands waste water treatmentï¿½An option for small communities?

During the year, the EFC coordinated with several state government and nonprofit organizations to explore the benefits and applicability of employing constructed wetlands as an inexpensive and ecologically useful method for waste water treatment. In October, the EFC Coordinator was invited by Carroll County Commissioner Robin Frazier to speak with the County Commission about several waste water treatment financing challenges the county currently faces.

ï¿½ Lineboro, an unincorporated hamlet on the Pennsylvania line, has existed for over 100 years. Several years ago, the town was found to have a number of failing septic systems. There are approximately 60 to 65 affected residences, all on very small lots, some with no side yards (zero lot line). The entire town is no more than 20 acres in sizeï¿½the main street is approximately 1/2 mile in length. The town's location along the headwaters of the Gunpowder River makes the failing septic systems issue imperative. The town has been involved in discussions with the County regarding waste water treatment options, including employing constructed wetlands. The town formed a citizens group, the Lineboro Environmental Wastewater Treatment Association (LEWTA), which is coordinating efforts to solve this challenge. The EFC has discussed options with LEWTA and is gathering information about management options and rate structures for a waste water treatment system. The EFC is also coordinating with other organizations which have made themselves available to the County and Lineboro, including Maryland Environmental Service (MES), Maryland Rural Development Corporation (MRDC), the Alliance for Sustainable Communities and Maryland Department of the Environment.

ï¿½ Francis Scott Key High School recently completed an expansion project which included classrooms and the cafeteria. As part of that project, a conventional waste water treatment system was built. Although an NPDES permit was applied for, no construction permit was ever issued. The NPDES was never issued due to controversy over the effluent discharge location and the route to the discharge point, which was proposed to snake through an adjacent residential community. The County, therefore, has an operable treatment plant in place with no discharge point and no permit to operate. Three options include, 1) direct discharge to a natural but degraded wetland near the plant, 2) discharge to a constructed polishing wetland and then to the natural wetland, and 3) an alternative discharge to a dry swale tributary a bit farther downstream. The EFC is working with a consortium of groups (MES, MRDC, Alliance for Sustainable Communities to facilitate resolution of this problem. The EFC will specifically provide information about ways in which to finance the different options in order to better inform the decision.

Landfill insurance mechanisms for Northern Virginia

The EFC was asked by the Northern Virginia Planning District (NVPDC) to assist them in identifying ways in which to create an insurance mechanism to manage risks associated with landfills. Of primary concern to municipal solid waste landfills (MSWLFs) are the post-closure risks and costs associated with contaminated leachate polluting ground and surface waters. The EFC provided information and case studies on "environmental insurance products," including such ideas as "cleanup cost cap policies," and "pollution liability policies." The

EFC also introduced the NVPDC to Susan Neuman, President of Environmental Insurance Agency and an expert in the emerging field of environmental insurance products.

Training

Rate Setting Training for Sustainable Utilities

Across the country communities are working to balance their environmental needs and responsibilities with their budgets. A key to sustaining the capacity to provide clean water to drink ï¿½ and to protect our rivers and streams ï¿½ is to match costs with revenues. In order to achieve this, communities must learn to practice full-cost pricing, and to set rates that will be accurate, realistic and sustainable over the long term.

Small water and wastewater utilities face many challenges in structuring user rates that are fair and equitable to the customer yet provide sufficient revenue for the utilities' operations and future needs. Municipally owned systems in particular are prone to subsidize a utility fund with general funds, usually tax-derived dollars. This subsidy may represent a default policy, resulting from poorly structured or inadequate rates, rather than a conscious choice on the part of the governing board or body. Because the governing body must be responsive to an electorate as well as to a utility customer base, there is a tendency to set rates based on political expediency rather than on the costs of operations and capital improvement planning.

Utility rates that are not designed to cover the costs of adequate service will eventually threaten the system's ability to survive. Lack of sufficient revenue often prohibits sound management activities that are necessary to the utility's long-term performance and reliability. Activities such as planned equipment maintenance or replacement, system improvements that could increase efficiency or treatment quality, and increases in staff compensation to stay competitive in the hiring market are some examples of sound utility management. Lack of ability to perform those activities can lead to equipment failure, process failure, treatment standards violation and lack of continuity of operations due to staff turnover. These failures can result in poor drinking water or degraded surface waters and risks to human health.

West Virginia rate training workshops

During 1999, the EFC developed and delivered a series of training sessions in West Virginia using the RateMod Pro computer program. Co-sponsored by the West Virginia Rural Water Association, West Virginia Municipal League and the National Environmental Training Center for Small Communities, the workshops were attended by a combined total of 25 people representing more than 10 different utility systems, along with representatives of the West Virginia Public Service Commission, Department of State Planning, and Department of Environmental Protection.

West Virginia rate training participants included:

David Acord, II, WV Public Service Commission, Charleston, WV

William Baisden, Logan Co. PSD, Logan, WV

Richard Beagle, Opequon Public Service District, Martinsburg, WV

Carol Beck, Grant Co. Public Service Dist., Petersburg, WV

David Bostic, Kanawha Co. Commission, Charleston, WV

Michael Davis, Marshall Co. PSD #3, Moundsville, WV

Todd Dingess, Smith, Cochran & Hicks, P.L.L.C., Charleston, WV

Cindy Frich, Monongalia Co. Comm., Morgantown, WV

Cecelia R. Harris, City of Ronceverte, WV

Aaron S. Kitzmiller, Grant Co. Public Serv. Dist., Petersburg, WV

Karen Lilly, City of Hurricane, Hurricane, WV

Michael McNulty, WV Public Service Comm., Charleston, WV

Nancy A. Murdick, City of Ronceverte, WV

Monica Musgrave, City of Bridgeport, Bridgeport, WV

Mitchell Reeves, Ridgeley Water, Ridgeley, WV

Gene Riffey, Ridgeley Water, Ridgeley, WV

Clement Sees, WV Bureau for Public Hlth., Wheeling, WV

Lori Siburt, City of New Martinsville, Martinville, WV

Burl Smith, Buckhannon, WV

Lee Snyder, Jefferson Utilities, Kearneysville, WV

Debbie Spalding, Ridgeley Water, Ridgeley, WV

Robert Van Meter, Ridgeley Water, Ridgeley, WV

Annjeannette Vealey; Smith, Chochran & Hicks, PLLC, PO Charleston, WV

Jackie Willis, Valley Valls Pub. Serv. District, Fairmont, WV

Based upon our three successful workshops in West Virginia, West Virginia Rural Water Association has contacted the EFC Training Manager with dates for additional training sessions in the spring and summer of 2000. It is envisioned that at least three more sessions will be planned in different parts of the state.

One possible modification to the training will be the use of laptop computers to conduct the hands-on part of the class where attendees actually enter their own information using the RateMod software program. This innovation will increase the flexibility of offering the training workshops since we will not be limited by the availability of a computer training facility. We are finding great demand for the training, especially in the smaller and more remote parts of our region, and this innovation will allow us to better service a wider range of our customers.

As a result of our success in West Virginia, we have begun to discuss offering this same curriculum, or an abridged version, as a "short course" for a National Environmental Training Center for Small Communities (NETCSC) program during the summer of 2000 at West Virginia University.

In addition, the Mid-Atlantic Technology Assistance Center, part of the Maryland Center for Environmental Training (MCET), is seeking financial evaluators who have experience with water system finances. MCET conducts financial evaluations for drinking water systems and is interested in expanding services to their customers. After discussing the EFC's expertise in this area, employing the Rate Mod software program, the EFC is in discussions with MCET to provide this service, on a contract basis, for MCET's customers.

In addition, the Environmental Finance Center, jointly with the Maryland Center for Environmental Training

(MCET) and Maryland Rural Water Association (MRWA), have begun planning a 1.5 hour session at the Maryland Municipal League's Convention 2000. The session, entitled "EPA Impacts on Water and Sewer Systems: Reporting and Monitoring Guidelines," will highlight the monitoring and reporting requirements for water and sewer systems imposed and enforced by both the EPA and Maryland Department of the Environment. How those requirements have changed as a result of amendments to the Safe Drinking Water Act and Clean Water Act will be specifically discussed, along with the requirements of any related legislation and regulations.

In another exciting development for our rate design training efforts, our EFC Training Manager has been invited to sit on the work group that is developing the Capacity Development Plan for the State of Maryland to submit to EPA for approval and eventual enforcement. We continue to explore ways in which to assist Maryland Department of the Environment in their Capacity Development efforts under the new Safe Drinking Water Act (SDWA) provisions, especially by offering our training workshops.

Education/Training Opportunities through Conference Forums and Sessions

"Toward A Sustainable Chesapeake" Summit

The EFC was part of an Advisory Team which developed the agenda for a summit on sustainable communities in the Chesapeake region. The Summit, held in Baltimore, addressed such issues as:

- ï¿½ Promoting innovative site planning
- ï¿½ Preparing watershed management plans
- ï¿½ Nurturing sustainable economic growth
- ï¿½ Building community capacity

As part of that effort, the EFC developed and conducted a session, "Nurturing Sustainable Economic Growth," which featured Michael Kinsley of the Rocky Mountain Institute. The session's premise was that communities are beginning to see that economic "growth" does not always mean an enhanced quality of life. Session themes included environmental and farmland preservation, community revitalization, economic development and land use policy. The EFC presented two case studies, Fauquier County and the city of Waynesboro, both in Virginia. Denise Harris, Associate Planner in Fauquier County, and Dan Nees (from the EFC, representing the Director of Planning in Waynesboro), discussed the exciting work being done in their communities as they attempt to reinvigorate their economies in an environmentally benign manner.

Building on these cases, Michael Kinsley, director of the Rocky Mountain Institute's Economic Renewal Program, and author of The Economic Renewal Guide, discussed the opportunities communities have to evaluate their local, individual strengths, consider alternative, innovative strategies, and begin to outline practical steps for sustainable economic renewal.

A discussion of participants' individual situations followed, and was moderated by the EFC Coordinator. Overall, the session was successful in recognizing that communities may desire to act in environmental responsible ways, but may not always have the tools and techniques to effect changes in the status quo. The experience was useful for the EFC to learn firsthand what tools and techniques are most needed by communities.

Thinking Beyond the Boundaries: Issues Shaping Our Region, Lititz, PA

On February 14, 1998, USEPA, USDA, and other federal agencies submitted the Clean Water Action Plan (CWAP) to the White House which charts a course toward fulfilling the original goal of the Clean Water Act ï¿½ fishable and swimmable waters for all Americans. A key component of CWAP is restoring the Nation's vital wetland resources. Since 1983, the Chesapeake Bay Program (CBP) has cooperatively worked with the states towards restoring the health of the Bay. An integral part of this program has also been the protection and restoration of wetland ecosystems. Under Directive 97-2 the Chesapeake Bay Program developed and implemented the Wetlands Initiative, a tool and information resource that assists local governments and community-based watershed groups to help preserve and restore their wetlands.

To help advance the goals of Directive 97-2 and the CWAP, the Wetlands Working Group of the Chesapeake Bay Program's Living Resources Subcommittee and EPA Region III invited the EFC to assist in conducting a pilot workshop in Lancaster County, Pennsylvania. The goal of the workshop was to inform local governments and other stakeholders of tools available to help them protect and enhance wetlands within their watersheds. The workshop would highlight the Lititz Run Watershed in Lancaster County, Pennsylvania, which illustrates a successful pilot for the CBP Wetlands Assessment, as well as highlight other efforts in the region conducting watershed based planning efforts.

During the one-day event, which was conducted on November 18, representatives from the town of Lititz described aspects of their watershed planning efforts including how to get started, community involvement techniques, obstacles, and solutions. Other tools that where showcased include the Green Communities Toolkit, the Chesapeake Bay Program's Community Watershed Initiative, and the Bay Program's "Protecting Wetlands" Tools for Local Governments.

The EFC Coordinator presented information on financing sources for wetlands protection, and facilitated a three-part discussion on how communities undertake a preservation and protection effort. Discussion points for the three sessions included:

Session I: "Bringing Groups Together"

ï¿½ Who are the stakeholders?
ï¿½ Who should be at the table?
ï¿½ How do we initiate contact?
ï¿½ How do we bring everyone together/what format?
ï¿½ What about contentious groups?
ï¿½ How do we facilitate a meeting?
ï¿½ How do we continue the momentum?
ï¿½ What resources are there for developing "community facilitation" capacity?

Session II: "Community Assessments"

ï¿½ What natural, cultural and social resources are unique to our watershed?

ï¿½ How do we assess our community's natural, cultural and social resources? Where do we get assessment data/information?

ï¿½ What are the current economic trends, social attitudes and political climate? Where is this information?

ï¿½ What is GIS and how can we use it?

ï¿½ What other types of technical assistance are available to help in planning, financing and watershed management?

ï¿½ What about other tools, such as monitoring, ground truthing, stream assessments, and more? How do we integrate these into planning and decision-making?

Session III: "Financing Activities and Initiatives"

ï¿½ How do we secure the "first dollar" in our effort?
ï¿½ How do we leverage these dollars?
ï¿½ How do we market/promote our efforts to potential funders?
ï¿½ How do we involve the private sector?
ï¿½ Should we dedicate a person to fundraising for the entire initiative? Raise funding on a

project-by-project basis?

Forum Participants included:

Baldwin, Roy E.	Manheim Township Commissioner	Lancaster	PA
Barry,Sue Ann	Borough of Lititz	Lititz	PA
Boyle, Jineen	DER - Regional Watershed Coordinator	Lancaster	PA
Bruns,C. Alan	Lancaster Township Planning Commission	Lancaster	PA
Bunteman,Guy	Manheim Township	Lancaster	PA
Christopher, Lisa	Intel		
Demanski, Stu	DEP RCSOB	Harrisburg	PA
Denlinger, Rick	Manheim Twp. Parks and Recreation		
Devaney, Mike	DEP Local Govt.. Liaison	Harrisburg	PA
Ebel,Bill		Lancaster	PA
Ernharth, Thomas	East Hempfield Township	Landisville	PA
Fackler, Nancy	West Hempfield Twp.	Silver Spring	PA
Fritz, Mike	EPA, CBP		
Gardner, Jack	Millersville Borough	Lancaster	PA
Gochenaur, Steve	Lancaster County GIS Department	Lancaster	PA
Grundahl, Nancy	USEPA Region III		
Guers, Dan	Borough of Akron	Akron	PA
Gutchscall, Mark	LandStudies Inc	Lititz	PA
Heffner, Kelly	DEP RCSOB	Harrisburg	PA
Juengling, Jean	Lancaster County GIS Department	Lancaster,	PA
Knepper,Matt	Lancaster County Agric. Preserve Board	Lancaster	PA
Kutz,Bob	Donegal Trout Unlimited	Brownstown	PA
Leed, Dolores	Denver Borough Planning Commission Denver	PA	
Marshall, Jeffrey	Geoscience Department	Lancaster	PA
Moran, Sharon	Geoscience Department	Lancaster	PA
Moyer, William	Millersville Borough	Millersville	PA
Myers, Logan	Lititz Run Watershed Alliance		
Neff,Carl	Manheim Township	Lancaster	PA
Newell, Gwen	Lancaster Co. Planning Commission	Lancaster	PA
Nicholas,Sara	Alliance for the Chesapeake Bay	Harrisburg	PA
Pepino, Richard	USEPA Region III		
Poeske, Regina	USEPA Region III		
Robinson, Don	Lancaster Co. Conservation District		
Rumbaugh,Rhonda	Lancaster County Academy		
Schell-Magaro, Barbara	DEP - Regional TMDL Coordinator	Harrisburg	PA
Sellers, Ivan	Chester Water Auth./Martic Township	Nottingham	PA
Shaughnessy,Deborah	Susquehanna River Basin Commission	Harrisburg	PA
Smith, James	Martic Twp. Plng. Com. And Watershed Assoc.	Holtwood	PA
Souders, Charles	Warner-Lambert Co.	Lititz	PA
Stoner, Robert	Borough of Manheim	Manheim	PA
Sylvester,Steven	Franklin and Marshall College	Lancaster	PA
Synoracki, Dan	Rettew Associates, Inc.	Lancaster	PA
Trulio, Lynne	US EPA, Wetlands, Oceans & Watersheds		
Virgil,Tina L.	Pequea Township Zoning Board	Lancaster	PA
Weaver,Tim	Pequea Township Zoning Board	Lancaster	PA
Wilson, Greg Donegal	Trout Unlimited	Brownstown	PA
Zimmerman, Dan	Warwick Township	Lititz	PA

"Flowing Toward the Future: 21st Century Directions for the Delaware River and its Watersheds"

The EFC was invited to offer a training session on environmental finance during the first ever Delaware River watershed-wide conference, held in Philadelphia on November 15-17. During year, the EFC designed an interactive training seminar which promoted the interrelated nature of financing programs and techniques and the benefits of its application on a watershed-wide basis.

Unfortunately, the EFC was notified the day before the event that very few conference participants had signed up for the seminar and therefore the seminar was being canceled. The conference organizer, The Heritage Conservancy, has invited the EFC to offer the seminar in the spring on a stand-alone basis which we will pursue. Below is the outline for the full-day training seminar:

Environmental Finance Seminar

ï¿½ Introductions, "Why Are You Here?" and Overview of the Seminar
ï¿½ Overview of the Environmental Finance Center and environmental finance
ï¿½ Questions and discussion
ï¿½ I) Techniques for Identifying/Addressing Community Issues: the Charrette process
ï¿½ Charrette video "From Obstacles to Options"
ï¿½ Questions and discussion; charrette case study booklet
ï¿½ II) Community Quilt concept of financing
ï¿½ Funding matrix, questions and discussion
ï¿½ Lunch
ï¿½ Trends in Capital Financing:

Federal/State aid

- ï¿½ Current receipts
- ï¿½ Debt

ï¿½ Rate structures and Rate Mod Proï¿½
ï¿½ Questions and discussion
ï¿½ Financing Techniques to complement funding programs: Beyond Taxes and Bonds

- ï¿½ Management Agreements
- ï¿½ Leases
- ï¿½ Special Districts

ï¿½ Questions and discussion
ï¿½ III) Putting It All Together: Case Studies and Discussion

Eco-industrial Park financing Roundtable

One premise of the eco-industrial park (EIP) initiative is that "old style" manufacturing, embodied in suburban industrial parks that dot the landscape, may soon become a thing of the past. Having no more in common than sharing a common highway exit and a sewer line, these types of manufacturing clusters will be replaced by eco-industrial parks that link manufacturers more closely together into an industrial "eco-system" for business and environmental efficiency.

Businesses have always depended upon a large system of suppliers, customers, and employees to be successful, but an inherent assumption was that each company was an island, unrelated to the business next door. By consciously integrating similar businesses with similar needs into an industrial complex which is designed in an environmentally sensitive manner, we can start to promote "smart business," which draws on the efficient interactions of related businesses to nourish corporate success. By demanding environmentally sensitive design in these eco-industrial parks, such as employing solar panels, reusing gray water in landscaping and low-impact stormwater designs, eco-industrial parks will also be much better for the environment.

During the summer and fall, the EFC helped plan and conduct an Eco-Industrial Development Roundtable in Washington D.C., in collaboration with Cornell's Work and Environment Initiative. Coordinated by Ed Cohen-Rosenthal, Director of the Work and Environment Initiative, the October roundtable planning group consisted of Dennis Alvord (EDA), Suzanne Giannini-Spohn (EPA), Bracken Hendricks (NOAA), Jerry Kotas (DOE), Carrie Hunter (Sustainable DC) and Beth Hickey (Environmental Finance Center).

The Roundtable, held on October 12 and 13, 1999, brought together representatives from the public and private sector to discuss the current status and financing of eco-industrial development. During the Roundtable, participants received updates about several eco-industrial parks, including an update from Tim Hayes of the Port Charles Sustainable Industrial Park in Northampton, VA, a client of the EFC. The EFC Coordinator also facilitated a discussion about private sector financing and banks potential involvement in developing

eco-industrial parks.

Roundtable participants included:

Justin Bielagus, Cold Stream Real Estate Advisors, Inc., Londonderry EIP project, NH
Bob Frenay, Aegis Int'l, Lakeport EIP project, NY
Michael Krause, Green Institute, Minneapolis, MN
Chester Smith, Dept. of Econ. And Community Dev., Red Hills EcoPlex, Jackson, MS
Jon Feinstein, NAIOP-Vanasse, Hangen, Brustlin Inc.
Hank Traweek, Shorebank Enterprise Group, Cleveland, OH
Julie Gorte, Calvert Social Fund, Bethesda, MD
Art Rogers, AFL-CIO Investment, Washington, DC
Tim Hayes, Sustainable Technology Park Authority, Cape Charles, VA
Nick Warner, Office of Community and Econ. Dev.,Riverside EcoPark, Burlington, VT
Frank Monteferrante, Economic Development Administration, U.S. Dept. of Commerce
Dennis Alvord, Economic Development Administration, U.S. Dept. of Commerce
Kristen Sarri, U.S. Department of Housing and Urban Development
Brett VanAkkeren, USEPA
Karl Alvarez, USEPA
Dan Wheeler, U.S. Department of Transportation
Chester Straub, Jr., Economic Development Administration, U.S. Dept. of Commerce
Roan Conrad, National Oceanic and Atmospheric Administration
Robert Wolcott, Office of Policy, Planning and Evaluation, USEPA
Marty Spitzer, former Executive Director, President's Council on Sustainable Development
Brian Castelli, Energy Efficiency & Renewable Energy, U.S. Department of Energy
Ron Matzner, Small Business Administration
Ed Stromberg, Division of Affordable Housing Research and Technology

Eastern Shore Land Conservancy conference presentation

The EFC Coordinator was invited to speak at the Eastern Shore Land Conservancy's conference "Thinking Beyond the Boundariesï¿½Issues Shaping Our Region" on October 30 about community infrastructure costs and how to "take charge." The presentation focused on the importance of full-cost pricing of services provided by local government, how innovative and fair rate structures for utilities can help, and sources of financing a variety of environmental projects. We provided copies of the Maryland Funding Matrix to participants as well as information about how the EFC could assist local communities with such services as charrettes and training workshops.

Conference participants included:

William Boicourt
Harrison Bristoll, Jr, Chestertown Councilman
Marcy Brown, Kent County Planning Commission
Charles Cawley, Caroline County
Elizabeth Carroll, Kent County
John Cole, Caroline County
Ann Collier, Caroline County Planning Commission
Dan Cowee, Talbot County Planning Officer
Sara Davidson, Town of Centreville, Council Member
Steven Dodd, Dorchester County Director, Planning and Zoning
Joseph Doherty
John Downes, Town Manager, Ridgely
Effie Elzie, Dorchester County, Vice-President, Board of County Commissioners
Thomas Fooks, Wilmington, DE
John Ford, Easton, Town Council
Janice Foti, Greensboro Planning Commission, Caroline County Plng. Comm.
Tom Gannon, Oxford Planning and Zoning
Loring Hawes, Queen Anne's County Planning Commissioner
Marshall Hodges, Caroline and Dorchester County Town Mgr./Circuit Rider
Brenda Horrocks
Anne Wilmer Hoon, President, Kent County League of Women Voters
Phil and Elizabeth Jones, Land Trust
Carol Kabler, League of Women Voters
Nancy Klein, Oxford Planning and Zoning
John Legates, Caroline County

Linda Makosky, Talbot County Planning Commission
Carla Martin, Kent County & Rock Hall Community Planner
Ernest Moore, Oxford Planning and Zoning
Elizabeth Morris, Vice-Chairman, Kent County Planning Commission
Frank Prettyman, Caroline County
Carl Reed, Easton Town Councilman
Lori Schmick, Caroline County, Environmental Planner
John Sewell, Trappe
Helen Spinelli, Caroline County
Joseph Weaver, Caroline County Planning Commission
Bob Zuehlke, Talbot County Economic Development Commission

Coastal Zone '99

At the Coastal Zone 99 conference in San Diego, California the EFC served on a panel discussing innovative financing tools and techniques for regional and community coastal projects. In the context of watershed-based financing, the EFC discussed ways for communities to leverage funding assistance by itemizing their needs and then targeting multiple funding sources. The annual conference was attended by nearly 1000 people representing both private and public sectors.

USEPA Office of Water's Annual Water Conference

The EFC was invited to speak during the USEPA's Annual Water Conference in Philadelphia about the "community quilt" concept of financing and the pending Clean Water Action Plan Pilot Training workshops.

Planning and assistance for the Nonpoint Source Pollution Innovative Finance project forum in Baltimore-Marine Studies Consortium and North East Mid West Institute

During the spring of 1999, the EFC was contacted by the Nonpoint Finance Efficiency Project, a joint effort of the Marine Studies Consortium, Chestnut Hill, MA, and the Northeast/Midwest Institute, Washington DC, supported by an award from the Joyce Foundation. The Project was seeking our interest in assisting in organizing a series of national forums on innovative nonpoint source pollution (NPS) control financing. Because of prior commitments, the EFC agreed to assist in organizing a forum for the Mid-Atlantic region only, tentatively scheduled for January 10, 2000.

The premise of the Project is that NPS pollution control financing has not been effectively and efficiently applied to the NPS problem. Between 1972 and 1989, the percentage of degraded U.S. lakes, rivers and streams decreased from more than 60% to 26%. This improvement in water quality was due largely to enforcement against point sources of pollution under the Clean Water Act (CWA), in conjunction with federal/state funding programs for municipal wastewater treatment. However, despite the continued success of the CWA at reducing point source pollution, U.S. water quality has declined over the past decade. According to EPA, the percentage of degraded U.S. waters increased from 26% in 1989 to 36% in 1999, due mainly to the growth of nonpoint source pollution (NPS).

This water quality trend reversal occurred despite a growing federal commitment to NPS remediation. Perhaps $2 billion/year in grants or loans is potentially available for NPS projects, mainly through USDA and EPA funding programs. While more funding for NPS controls may be needed, perhaps existing federal resources could be used more efficiently.

The Nonpoint Finance Project is seeking innovative ideas to improve the efficiency, effectiveness and integration of federal funding programs that address NPS water pollution.

The Project plans to hold a series of forums to evaluate existing NPS funding programs and examine innovative ways to finance NPS remediation. Forum participants will be asked to develop innovative ideas about how to increase the efficiency, effectiveness and integration of NPS funding programs. Changes to current law, regulation, finance mechanisms, and technical assistance programs are within the purview of the Project.

The EFC has assisted the Project in framing the issue through a series of conference calls throughout the year, and has provided Project collaborators with information about a range of financing programs, as well as points of contact for further information. We have also identified a list of potential participants for the January 10 forum, which will be held at Johns Hopkins University in Baltimore. Finally, the EFC Coordinator will be facilitating one of three break-out groups during the forum.

Environmental Finance Center Network

Clean Water Action Plan Pilot Training Workshops

In order to address a need for better understanding of watershed-based financing techniques, the EFC, on behalf of the Network, has begun developing a series of pilot training workshops which promote the coordination of funding and technical assistance programs with innovative financing techniques to support watershed management. The framework for the training workshops is the White House's Clean Water Action Plan (CWAP), a Plan which builds on the foundation of existing clean water programs and proposes new actions to strengthen efforts to restore and protect water resources.

In an effort to coordinate with other local government assistance providers, the EFC is collaborating with two national local government associations to offer three pilot workshops, one in the Chesapeake region and two in other parts of the country. The EFC is working with the International City/County Management Association (ICMA) and the National Association of Counties (NACO) to develop the Chesapeake workshop, which is tentatively set for April 2000. The two-day event will incorporate a three-hour Executive Session, designed for top elected officials, and a day-and-a-half intensive workshop and problem-solving session for local government staff.

Our plan is to offer this model in two other locations nationally in cooperation with the EFC Network, and, if future support is secured, to offer the workshops throughout the country.

Sustainable Urban Areas: Guiding Growth

The EFC, in coordination with the Environmental Finance Center Network, is examining the long-term sustainability of urban areas and their relationship to regional patterns of development through a series of four charrettes held regionally around the country.

The first charrette was held on July 22 in Charlotte in coordination with the EFC at the University of North Carolina at Chapel Hill. The charrette, entitled "Sustainable Urban Environments: Implementing a Brownfields Cleanup Revolving Loan Fund," focused on two issues:

ï¿½ How to implement the Brownfields Cleanup Revolving Loan Fund (BCRLF) program (a USEPA-funded program) while tailoring it to the needs of its target audience, i.e., developers, lenders, environmental consultants, and environmental attorneys who work closely with brownfields redevelopment

ï¿½ The City of Charlotte's Employment and Business Services Division (EBS, charged with management of the BCRLF) expertise lies in revitalizing distressed neighborhood communities through various strategies, including brownfields redevelopment. However, it had no technical expertise working directly with federal cleanup regulations.

How could the EBS Division marry its focus on neighborhood revitalization with this new opportunity for environmental redevelopment in those neighborhoods? Both of these issues needed to be addressed before the EBS Division could propose a workplan to USEPA for implementing the BCRLF program in Charlotte.

The Charlotte charrette, moderated by the Maryland EFC's Director, Jack Greer, presented an excellent opportunity for USEPA and other BCRLF cities to explore ways in which to optimize this new program.

Panelists included community stakeholders, financial partners, other City professionals from environmental planning and development, State EPA, environmental consultants, City Attorney's office, City Manager's office, and environmental attorneys. A summary of the charrette, along with the over thirty recommendations generated at the charrette, is available on the EFC at the University of North Carolina's web site http://www.unc.edu/depts/efc.

Three additional charrettes are being planned for spring 2000. The next charrette, tentatively scheduled for March 3, 2000, will take place at Cleveland State University in collaboration with the EFC at Cleveland State. The event is based on the proposition that redevelopment (reuse of previously developed sites and existing real estate) has less stature in public policy than "greenfield" development and, consequently, has limited opportunity for success. The purpose of the event is to explore this issue and develop possible corrective actions. Participants will consider strategies in the context of the forthcoming report of the Governor's Urban Revitalization Task Force to be issued in January 2000.

Another charrette will take place in the San Francisco area. In collaboration with the Environmental Finance Center in Region IX, the charrette proposes to look at ways in which to reconnect the economy and the environmentï¿½a sustainable economyï¿½in an urban core neighborhood.

The Bayview/Hunters Point district of San Francisco will be the focus of the charrette. The neighborhood has two Superfund sites, more than 400 toxic waste dumps, several brownfields, and numerous industrial emission sources within its environs. This ethnically diverse area believes that environmental health concerns have inhibited a broader range of investment in its community. Community leaders would like to explore options available to urban neighborhoods which are struggling to establish a sustainable economy while protecting and even reclaiming their local environment.

A probable timeframe for this charrette is mid- to late- March, but will be finalized shortly.

The fourth charrette is tentatively scheduled in the Houston area in collaboration with the EFC at the University of New Mexico (Region VI EFC). There are several issues of concern in Houston which would be appropriate topics for the Sustainable Urban Areas initiative. The City of Houston, in coordination with the EFC at UNM and USEPA Region VI are discussing their options and will be deciding on a topic and date shortly.

Publications

Article published in InterCoast Network.

During the past year, the EFC wrote an article entitled "The Community Quilt Concept of Environmental Financing," for an international newsletter for coastal managers. The newsletter, *InterCoast* (volume #33, Winter 1999), is published by the Coastal Resources Management Project of the University of Rhode Island's Coastal Resources Center and the U.S. Agency for International Development.

The article discussed the advantages of piecing together programs, technical assistance and innovative financing techniques to create broad-based solutions to environmental challenges.

Article in Maryland Marine Notes.

Following the land trust roundtable in February 1999, the EFC director published an article, "Land Trusts: Partners in Protecting the Chesapeake," in Maryland Marine Notes (Volume 17, No. 3), addressing the role of land trusts in preserving open space and especially forested lands. Along with forest experts and local land trust organizers, the article quoted the Maryland EFC Coordinator and a member of the Environmental Finance Advisory Board (Michael Curley) on the issue of financing land preservation efforts.

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