

EPA
1990
1995,
2003

FOREWORD

It is our great pleasure to present the 2003 Annual Report of EPA's Environmental Finance Center Network. The Network consists of university-based Centers which provide finance training, education, and analytical services designed around the "how to pay" issues of environmental compliance. Since the creation of the first center twelve years ago, the EFCs have expanded into a network that comprises nine centers strategically located at major universities in eight Federal Regions:

- University of Southern Maine (Region 1)
- Syracuse University (Region 2)
- University of Maryland (Region 3)
- University of North Carolina at Chapel Hill (Region 4)
- University of Louisville (Region 4)
- Cleveland State University (Region 5)
- New Mexico Institute of Mining and Technology (Region 6)
- California State University at Hayward (Region 9)
- Boise State University (Region 10)

The EFC Network has become a significant force in assisting local governments and small businesses in meeting environmental standards. A central goal of the Network is to help create sustainable environmental systems in the public and private sectors. Sustainable systems have the financial, technical, and institutional resources and capability to operate indefinitely in compliance with environmental requirements and in conformance with generally accepted environmental practices. Paying for environmental protection is an important component of sustainability and continues to be primarily a responsibility of local governments and the private sector.

For their part, the financial outreach services of the EFCs help meet environmental needs by identifying ways of cutting costs, lowering and shifting costs, and increasing private sector investment in environmental systems. The reader will find in the following pages many innovative and traditional activities the EFCs have undertaken in accomplishing these objectives. Their work, however, is an ongoing process, and the sum total of the Network's benefits make an important contribution to environmental progress in this country. Information about the Environmental Finance Center Network, along with previous years' Annual Reports, can also be found on our website on EPA's Environmental Finance Program homepage at <http://www.epa.gov/ocfo/> or <http://www.epa.gov/efinpage/>.

We welcome your comments and suggestions.

Joseph L. Dillon
Director
Office of Enterprise Technology and Innovation
U. S. Environmental Protection Agency



ACKNOWLEDGMENTS

A great many dedicated people have helped the Environmental Finance Centers (EFCs) along the way. We particularly want to acknowledge the EPA Regional management and staff noted in the following listing who have generously provided their skills and time in managing the cooperative agreements with each of the centers. The EFC network would simply not exist without the Regions' superb cooperation and support. Additionally, we appreciate very much the key assistance and support of Headquarters management and staff in the Program Offices.

We want to express our appreciation to the leadership of the Environmental Financial Advisory Board (EFAB), particularly Lyons Gray, Chairman of EFAB, who has had a distinguished career in both business and public service, and Stan Meiburg, the Environmental Financial Advisory Board's Designated Federal Official, and Deputy Regional Administrator for Region 4. We are very pleased that both of these highly respected individuals have brought their considerable knowledge and skills to this Federal Advisory Board and are looking forward to a continuing working relationship with them, given the interactive role of the EFC Directors as expert witnesses to EFAB.

We also are grateful for the support of Charles Johnson, EPA's Chief Financial Officer. A successful business leader with KPMG before coming to EPA, Charlie was also Chief of Staff to the Governor of the State of Utah, and prior to that Director of the Governor's Office of Planning and Budget.

Finally, we want to thank Michael Ryan, Deputy Chief Financial Officer, and Joseph Dillon, Director of the Office of Enterprise Innovation and Technology, for their outstanding support of the Centers. There is no model or template for the Centers and they have benefitted greatly from the valuable guidance and suggestions of these highly respected leaders.

Finally, we want to recognize the staff of the Environmental Finance Program, whose efforts and dedication prove that resources can be leveraged into far-reaching results.

Vera Hannigan
EFC Network National Coordinator

ENVIRONMENTAL FINANCE CENTERS ACKNOWLEDGMENTS

The EFC Network would like to acknowledge the support and working relationships between the EFCs and the state and local governmental entities they serve. Also, the EFC Network is greatly indebted to EPA, both Headquarters and the Regional offices, for providing ongoing expertise and participation.

REGION 1 - UNIVERSITY OF SOUTHERN MAINE EFC

EFC

- Prof. Richard Barringer, Director
- Dr. Sam Merrill, Projects Director
- Prof. Charles Colgan, Faculty Associate
- Prof. Jack Kartez, Faculty Associate
- Prof. Mark Lapping, Faculty Associate
- Prof. Evan Richert, Faculty Associate
- Prof. Orlando Delogu, Faculty Associate
- Jodi Castallo, Project Manager
- Karen Young, Director, Casco Bay Estuary Project
- Karl Braithwaite, Dean, Muskie School of Public Service
- Tom Woods, Operations Director, Muskie School of Public Service

Service

- Sarah Hennessey, Graduate Assistant
- Andy DesPres, Graduate Assistant
- Linda Grace, Administrative Assistant

EPA Region 1

- Robert Varney, Regional Administrator
- Carl Dierker, Office of Regional Counsel
- Rosemary Monahan, Smart Growth Coordinator
- Diane Gould, Program Officer, and Casco Bay Estuary Project

Coordinator

- Steve Silva, Maine State Office Director

EPA HQ The Environmental Finance Program Team:

- Vanessa Bowie, EFAB Coordinator
- Vera Hannigan, EFC Coordinator

REGION 2 - SYRACUSE UNIVERSITY EFC
(In Memoriam for Robert Gill)

EFC

- Kim Farrell, Director
- Amy Santos, Assistant Director
- Kevin Jacobson, Program Manager
- Peg Stroman, Project Coordinator
- Mary Ellen Gilbert, Administrative Assistant
- Naila Almagambetova
- Jeremy Ames, Research Associate
- Abbey Clymer, Research Associate
- Yan Dong, Research Associate
- Alan Hallenbach, Research Associate
- Sarah Holsen, Research Associate
- Martine Kalaw, Research Associate
- Sarah Kate Kirk, Research Associate
- Sean Kimball, Research Associate
- Nathan Reese, Research Associate

EPA Region 2

- William Muszynski, Deputy Regional Administrator, EPA Region 2
- Elizabeth VanRabenswaay, Chief, Construction Grants, SRF Section, EPA R-2

Other Partners

- Patrick Brennan, USDA State Director, New York
- Jim Stearns, New York State Environmental Facilities Corporation
- David Miller, USDA RUS, Syracuse
- Jeff Smith, Munistat Financial Services, New York
- Pat Scalera, New York Rural Water Association
- Bill Webb, Rural Community Assistance Program (Northeast)
- Scott Mueller, Rural Community Assistance Program (Northeast)
- Rob Company, Bernier and Carr Engineering
- Bill Hall, Sterns and Wheler
- Kevin Smith, Tug Hill Commission, Watertown, New York

REGION 3 - UNIVERSITY OF MARYLAND EFC

EFC

- Jack Greer, Director, EFC
- Michelle O'Herron, Assistant Coordinator
- Jean Holloway, Training Manager

Maryland Sea Grant

- Jonathan G. Kramer, Director, Maryland Sea Grant
- Bonny Marcellino, Assistant Director for Administration, Maryland Sea Grant
- Theresa Lee, Program Management Specialist, Maryland Sea Grant
- Dan Jacobs, Information Technology Manager, Maryland Sea Grant
- Jeanette Connors, Administrative Assistant, Maryland Sea Grant

EPA Region 3

- Donald S. Welch, Regional Administrator
- Mindy Lemoine, Grants Administrator
- Mary Zielinski, Grants and Audit Management Branch
- Ghassan Khaled, Drinking Water Branch

National Environmental Training Center for Small Communities at West Virginia University (NETCSC)

- John Hoornbeck, Director
- Sandra Fallon, Training Specialist
- Mary Alice Dunn, Training Specialist

West Virginia Rural Water Association

- Starla Snead, Capacity Development Program Coordinator

Virginia Rural Water Association

- Ken Coffman, Program Specialist

Small Public Water Systems Technical Assistance Center (SPWSTAC) at Penn State-Harrisburg

- Charles Cole, Director
- Alison Shuler, Training Coordinator
- Sue Hipple, Administrative Assistant

Northeast Rural Communities Assistance Program

- Don Schwartz, Senior Water Resource Specialist

Delaware Environmental Training Center

- Jerry Williams, Director

Maryland Rural Development Corporation

- Joyce De Laurentis, Community Development Specialist

West Virginia Department of Health and Human Resources

- J. Scott Rodeheaver, Geologist, Program Manager I

Maryland Department of the Environment

- John Grace
- Gul Behsudi
- Barry O'Brien
- Terry Ugiansky

Maryland Department of Natural Resources

- Danielle Lucid
- Nick Williams

National Park Service Rivers, Trails, and Conservation Assistance Program

- Wink Hastings

Institute for Governmental Service, University of Maryland, College Park

- Philip Favero, Extension Specialist

The Wilderness Society

- Judy Guse-Noritake
- Fran Hunt

REGION 4 - UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL EFC

- EFC**
- Jeff Hughes, Director
 - Prof. Richard Whisnant, Associate Professor
 - Lynn Weller, Program Manager
 - Mike Lugar, Director, Office of Economic Development
 - Joe Cook, Research Associate
 - Sherrie Barrier, Research Associate
 - Rich Thorsten, Research Associate
 - Maia Blankenship, Research Associate
 - Ben Altz-Stamm, Research Associate
 - Matt Richardson, Research Associate
 - Scott Morrissey, Research Associate
 - Chris Heaney, Research Associate
 - Alicia Jolla, Graduate Assistant

EPA Region 4

- Stan Meiburg, Deputy Regional Administrator
- Linda Rimer, Liaison for the Carolinas
- Cory Berish
- Mary Jo Bragan
- Dale Froneberger

EPA Headquarters, Environmental Finance Staff

- Vanessa Bowie
- Vera Hannigan
- Tim McProuty
- Alecia Crichlow

State

- Bill Ross, Secretary, N.C. Department of Environment and Natural Resources
- Bill Holman, Clean Water Trust Fund
- Richard Rogers, One NC Naturally Land Conservation Program
- Jessica Miles, Public Water Supply Section
- Sid Harrell, DWSRF
- Bobby Blowe, CWSRF
- Janice Burke, Local Government Commission

Universities

- Mike Smith, Dean, School and Institute of Government
- John D. Kasarda, Director, Kenan Institute for Private Enterprise

REGION 4 - UNIVERSITY OF LOUISVILLE EFC

EFC

- Peter Meyer, EFC Director
- Lauren Heberle, Assistant Director
- Russell Barnett, EFC Project Manager
- Karen Cairns, Project Associate
- Carol Norton, Project Assistant
- Susan Opp, Graduate Research Assistant
- R. Diane Gossett, Administrative Assistant

EPA Region 4

- Stan Meiburg, Deputy Regional Administrator
- Cory Berish, Chief, Planning and Analysis
- MaryJo Bragan, Project Officer

REGION 5 - CLEVELAND STATE UNIVERSITY, GREAT LAKES EFC

EFC

- Kevin E. O'Brien, Executive Director
- Claudette Robey, Assistant Director
- Kirstin Toth, Project Manager

- Larry Ledebur, Ph.D., GLEFC Fellow
- Michael Tevesz, Ph.D., GLEFC Fellow
- Wendy Kellogg, Ph.D., GLEFC Fellow
- Daniel Baracskey, Ph.D., Research Associate
- Michael McGoun, Research Assistant
- Vivian Tucker, Administrative Assistant
- John Storey, Graduate Assistant
- Becky Salak, Graduate Assistant
- Sarah Hudecek, Graduate Assistant

EPA Region 5

- Lyn Lutner, Region 5 Cleveland Office
- Deborah Orr, Region 5 Brownfield Team
- Joseph Dufficy, Region 5 Brownfield Team
- Brooke Furio, Region 5 Brownfield Team
- Carla Aucker, Region 5 Cleveland Office Brownfields Team

U.S. Department of Housing and Urban Development (HUD)

- Doug Shelby, Director, Cleveland Office
- Paul Diegelman, Community Builder

U.S. Department of Commerce, National Oceanic and Atmospheric Administration (NOAA)

- Kate Barba, National Estuarine Research Reserve Program Manager

State of Ohio

- John Magill, Director, Urban Development, Ohio Department of Development
- Amy Alduino, Administrator, Clean Ohio Revitalization Fund
- Steve Grossman, Ohio Water Development Authority
- Tiffani Robinson, Ohio EPA Voluntary Action Program
- Amy Yersavich, Ohio EPA Voluntary Action Program
- Jeff Reutter, Ohio Sea Grant College Program
- Yetty Alley, Ohio Department of Natural Resources
- Linda Feix, Old Woman Creek National Estuarine Research Reserve

EPA Headquarters

- Vanessa Bowie, EFC Team Leader
- Vera Hannigan, EFC Team
- Tim McProuty, EFC Team

REGION 6 - UNIVERSITY OF NEW MEXICO EFC

EFC

- Heather Himmelberger, P.E., EFC Director
- Susan Butler, Program Manager

- Keith Melton, Program Manager
- Beverly Rizzolo, Tribal Capacity Development
- Andy Edmondson, Environmental Engineer
- Christy Jones, Environmental Engineer
- Peter Murtaugh, GIS/GPS Analyst
- Cynthia Hernandez, Project Coordinator
- Shannon Culbertson, Research Assistant
- Julia Shavar, Administrative Assistant

EPA Region 6

- James Brown, Chief, Drinking Water Section, Water Quality Protection Division
- David Reazin, Drinking Water Section, Water Quality Protection Division
- Blake Atkins, State/Tribal Programs Section, Water Supply Branch
- William Davis, Drinking Water Section
- Andrew Waite, Drinking Water Section
- Thomas Poeton, Drinking Water Section
- Marvin Waters, Drinking Water Section
- Freda Wash, State/Tribal Programs Section, Water Quality Protection Division
- Betty Ashley, State/Tribal Programs Section
- Yulonda Davis, State/Tribal Programs Section
- Kim Ngo, Drinking Water Section, Water Quality Protection Division
- Teena Scott, State/Tribal Programs Section
- Ken Williams, Source Water Protection Section, Water Quality Protection Div.

EPA/HQ

- Peter Shanaghan, Small Systems Coordinator, OGWDW
- Jamie Bourne, Drinking Water Academy, OGWDW
- Debra Gutenson, Source Water Protection, OGWDW
- Roy Simon, Source Water Protection, OGWDW

Region 6 State Agencies

Arkansas

- Harold Siefert, Division Director, AR Department of Health

Louisiana

- Mason Seals, Capacity Development Coordinator, LA Dept. of Health and Hospitals
- T. Jay Ray, Manager, Drinking Water Revolving Loan Fund, LA Dept. of Health and Hospitals

New Mexico

- Bill Bartels, Bureau Chief, Drinking Water Bureau, NM Environment Department
- Ken Hughes, Local Government Division, NM Dept. of Finance and Administration
- Tom Pollard, Executive Director, New Mexico Finance Authority

-
- Albert Racelis, County Planner, Dona Ana County NM
 - Cynthia Rex, NM Finance Authority
- Oklahoma**
- Mike Harrell, P.E., Environmental Engineer Supervisor, Water Quality Division, OK Dept. of Environmental Quality
 - Tim Ward, Capacity Development Coordinator
- Texas**
- Tony Bennett, TNRCC
 - Buck Henderson, TNRCC
 - Doug Holcomb, P.E., TNRCC
 - Wayne Wiley, Jr., TNRCC
 - Dorothy Young, TNRCC

REGION 9 - CALIFORNIA STATE UNIVERSITY, HAYWARD EFC

EFC

- Sarah Diefendorf, EFC Executive Director
- Susan Blachman, EFC Associate Director
- Ann Blake, EFC Senior Associate
- Vicki Vasquez, Programs Coordinator
- Jim Nicholas, Website Designer

EPA Region 9

- Laura Yoshii, Deputy Regional Administrator
- Bill Jones, EFC9 Grant Manager, Solid Waste Division
- Eileen Sheehan, Pollution Prevention Coordinator
- Leif Magnuson, Pollution Prevention Division
- John Katz, Pollution Prevention Division
- Sue McDowell, Solid Waste Division
- Patricia Norton, Solid Waste Division

California EPA

- Kim Hooper, Department of Toxic Substances Control, Hazardous Materials Laboratory
- Tom McDonald, Department of Toxic Substances Control, Hazardous Materials Laboratory

California State Senate

- Maria Armoudian (Senior Staff, Senator Alarcon)

Public Sector

- Ceils Scandone, Green Business Coordinator, Association of Bay Area Govts.
- Pam Evans, Alameda Green Business Program
- Robin Bedell-Waite, Contra Costa County Green Business Program

Hawaii

- Gail Suzuki-Jones, State Department of Business, Economic Development & Tourism
- Karl Montoyama, State Department of Health, Pollution Prevention Coordinator
- Dennis Hwang, Coordinator, Hawaii Green Business Program

Arizona

- Al Brown, Director, Environmental Services, Maricopa County
- Bob Evans, Program Manager, Environmental Services, Maricopa County
- Supervisor Mary Rose Wilcox, Maricopa County

Nevada

- Kevin Dick, Director, Business Environmental Program, University of Nevada, Reno
- Ed Gonzalez, Director, Western Regional Pollution Prevention Network

REGION 10 - BOISE STATE UNIVERSITY EFC

BOISE STATE UNIVERSITY

- Robert Kustra, President, Boise State University
- Darryl Jones, Provost, Boise State University
- Mark Dunham, Office of the President, Boise State University
- Michael Blankenship, Dean College of Social Science and Public Affairs
- James B. Weatherby, Chair, Department of Public Policy and Administration
- John Owens, Vice President of Research
- Lawrence Irvin, Director, Office of Research Administration
- Kim Chanley, Sponsored Projects Accounting
- George Murgel, P.E., College of Engineering
- Amanda Horton, University Counsel

EPA/Region 10

- William Chamberlain, Office of Water Quality, Drinking Water Unit
- Amber Wong, Office of Ecosystems and Communities
- Bevin Reid, Office of Ecosystems and Communities
- Richard Green, Office of Water Quality, Drinking Water Unit
- James H. Werntz, Director, Idaho Operations Office

EPA/Region 7

- Robert Dunlevy, Groundwater-Drinking Water Branch, Office of Water

EPA/HQ

- James Bourne, Drinking Water Academy, Office of Water
- Jenny Bielanski, Office of Groundwater and Drinking Water, Office of Water
- Peter Shanaghan, Drinking Water State Revolving Fund

- George Ames, Chief, SRF Branch, Office of Water

Federal Agencies

- Brayton Willis, United States Army Corps of Engineers
- Debra Willis, United States Army Corps of Engineers

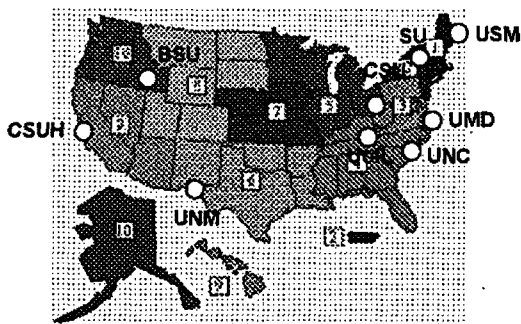
State

- Lance Nielsen, IDEQ Drinking Water Program
- Bill Jerrel, IDEQ State Revolving Fund Program
- Chris Lavelle, IDEQ Capacity Development Coordinator
- David Risley, IDEQ Source Water Protection Program
- Dan Garner, Alaska Department of Environmental Conservation
- John LaRocque, Washington Department of Community Trade and Economic Development
- Leslie Hafford, Washington Department of Community Trade and Economic Development
- Allison Hensey, Oregon Watershed Enhancement Board
- Scott Ruby, Alaska Department of Community and Economic Development
- Cathy Tucker-Vogel, Kansas Department of Health and Environment
- Jennifer Bunton, Iowa Department of Natural Resources

Private Sector and Nonprofit Organizations

- Ken Harward, Association of Idaho Cities
- Jeff McCreary, Ducks Unlimited
- Michael Sebastian Hargrove, Nature Conservancy
- Don Munkers, Idaho Rural Water Association
- Dan Schultz, The Network Group





Environmental Finance Center Network

THE ENVIRONMENTAL FINANCE CENTER NETWORK – A UNIQUE ASSET FOR THE NATION

The Environmental Finance Center Network is the only university-based organization that creates innovative solutions to help manage the cost of environmental protection. Addressing difficult "how-to-pay" issues, the Network works with both the public and private sectors to promote a sustainable environment.

Core support for the Network is provided by EPA's Environmental Finance Program in the Office of the Comptroller, OCFO¹. The Network is comprised of nine Environmental Finance Centers, each affiliated with an EPA Region and located at the following universities.

- University of New Mexico
- University of Maryland
- Syracuse University
- California State University at Hayward
- Cleveland State University
- Boise State University
- University of Southern Maine
- University of North Carolina at Chapel Hill
- University of Louisville

THE VALUE OF THE ENVIRONMENTAL FINANCE CENTER NETWORK

The Network is

- | | |
|-------------------|--|
| Innovative | The Network shares and integrates information, tools and techniques across the country to develop innovative solutions to difficult problems. |
| Neutral | The Network is housed within nine Universities and is not governed by any one public or private agency or organization and so is neutral by its very nature. |

Multi- Disciplinary

The Network routinely employs staff from multiple disciplines including engineering, business, finance, planning, economic development, science, public administration, and law. For any project, the Network can access the expertise housed within the nine universities.

Local, Regional & National

The Network has a proven track record of working at all project levels from local to national.

The Network Offers

Financial Expertise

In solving environmental problems or addressing environmental issues, the Network brings a unique financial perspective.

Technical Transfer

The Network has worked in over 40 states and shares information and technical expertise among the states and within the Network to allow a national transfer of information.

Multi-Media Capabilities

The Network addresses a full range of environmental issues, including: hazardous waste, air, water, wastewater, solid waste, brownfields, environmental technologies and pollution prevention.

Partnerships w/ the Regulated & Regulators

The Network works with both the regulated community and regulators to promote efficient and effective environmental compliance.

National Presence

The Network routinely partners with other public and private entities to complete projects throughout the US and beyond.

¹ Office of the Chief Financial Officer

Environmental Finance Center Network

ENVIRONMENTAL FINANCE CENTER NETWORK TOOLS

The Network provides education, technical assistance and analyses to state and local governments and the private sector through various tools, including the following.

- **Finance Planning Strategies and Programs**
- **Local Economic Development**
- **Stakeholder Meetings**
- **Role-play and Simulations**
- **Economic and Fiscal Impact Analysis**
- **Utility Rate Setting**
- **Informal Surveys**
- **Guides**
- **Information Clearinghouse**
- **Strategic Information Systems**
- **Conferences & Workshops**
- **Charrettes**
- **Process Facilitation**
- **Research Publications and Reports, and**
- **Hand-On Assistance**

We have adopted these tools to help us navigate the numerous environmental media in which we work. Some tools apply across a broad spectrum of issues while others are limited to specific media.

Finance Planning Strategies and Programs include the provision of financial expertise in areas such as capital financing, operating cost management, innovative loan programs, and strategies and approaches for the public and private sectors.

Local Economic Development support involves numerous areas including eco-industrial parks, recycling, open space preservation, brownfields, greenfields, and green business and environmental industry support and promotion.

Stakeholder Meetings and Charrettes are implemented in various situations where input from a variety of stakeholders and participants is necessary to resolve an environmental finance problem.

Role-play and Simulations have been used in brownfields assistance where stakeholders learn what motivates and interests the other stakeholders with whom they need to negotiate, based on real circumstances.

Economic and Fiscal Impact Analyses are frequently performed for various projects including brownfields reclamation, rural land conversions and other forms of development.

Utility Rate Setting models and systems development programs have been developed for water and wastewater infrastructure projects.

Informal Surveys are frequently used for a range of projects from determining small business incentives for green manufacturing, to assessing local needs for redevelopment.

Guides have been developed to assist in shaping local policy and helping consumers choose and locate green businesses.

Information Clearinghouse is a role that all Centers play. The Network serves as a national repository and clearinghouse for environmental finance-related information, including information from the USEPA, the national Environmental Financial Advisory Board, and the national Environmental Financing Information Network.

Strategic Information Systems have been designed to improve financial and management capabilities of water systems.

Conferences & Workshops are offered by the Network throughout the United States on a range of topics from water and wastewater, to brownfields redevelopment and environmental technology transfer.

Process Facilitation is a broad tool designed to help take a project from concept to reality. Part of that facilitation may include Internal Partnering Meetings that promote inter-agency cooperation.

Finally the Network offers a wide range of **Research Publications and Reports, and Hands-On Assistance** to national, state, and local agencies as well as tribes and private sector organizations and businesses.

SELECTED PROJECTS ACROSS THE UNITED STATES

Since 1992, the Network has been working to promote sustainable development throughout the United States. The following is a selection of projects that best represents our talents.

Full Cost Pricing of Water and Sewer Services Small communities struggle with the challenge of providing safe drinking water and effective wastewater treatment services to the public. As a result, the Network provides

Environmental Finance Center Network

public health and environmental protection services at the lowest cost possible. Communities throughout the country have benefited from low or no-cost assistance in the areas of rate setting, capital replacement financing, financial management and assessing the impact of capital investments.

Brownfields Remediation and Cleanup Brownfield remediation projects have been profiled through site visits, while other projects actively involve Network members as partners in their operation. Program Evaluations for the Brownfields Cleanup Revolving Loan Fund have been conducted, as have assessments of the impacts of state-level brownfield regeneration promotion efforts. The Network has been involved in coordinating promotion efforts at the regional level and in the design and implementation of local level innovations including a Brownfield One-Stop-Shop initiative.

Multi-State Grants and Loans Database A database is being compiled of grants and low cost loans for environmental projects in North Carolina as well as five other southeastern states: South Carolina, Georgia, Florida, Alabama, and Mississippi. This database will be made available to local governments and citizen groups in those five states to help them identify low cost financing approaches for environmental projects. This database will also be an extension of the Network and EPA's Guidebook of Financial Tools.

Environmental Finance Course A course is being produced on environmental finance, intended to bridge the gap between existing academic courses on public finance and existing training programs for government officials. The course will be available for delivery throughout the Network and will be presented as a series of modules that can work together for an extended course of study, or separately for focus on individual topics.

Environmental Finance Policy Guides Guides are being developed to be used throughout the Network by state local government associations, Rural Community Action Program staffs and others. Topics, readable by people with high school educations, include the issues of land value 'takings' by regulation, resources valuation issues in water and wastewater system mergers/acquisitions, choosing among alternative subsidies for brownfield regeneration, and the economic and environmental features of different policy responses to urbanization pressures.

Unified Source Water Protection Working under a joint EPA/RUS Pilot initiative, a unified source water protection plan was developed to incorporate the needs of many water systems in New Mexico. The single or unified plan: reduced duplication of effort, allowed for a more expansive look at water resources, allowed for a

greater community involvement, and permitted side benefits by bringing water system managers and operators together on an ongoing frequent basis. This project will be replicated in four other EPA regions in an upcoming joint EPA/Network project.

Construction Debris Recycling Program A collaborative program was developed among government housing agencies, nonprofit housing entities, and private developers to recycle material from demolished housing and other structures.

Funding Analysis The Network frequently assesses performance of individual funding programs available for environmental improvements or infrastructure development. In addition, focus groups and informant interviews of program representatives and program beneficiaries or recipients have been conducted, and strategies recommended for cooperative funding to maximize opportunities for beneficiaries to obtain financing in the most cost-effective and politically palatable manner.

Mini-Grants Program for Local Government In a partnership with USEPA, the 2000/2001 Mini-Grants Program for Local Government is being managed. The purpose of the "Mini Grants" program, which could be replicated throughout the Network, is to promote effective technical assistance to business by providing seed money for local governments to build local Multi-agency Assistance Programs. Grant proposals must be tailored to specific industries, administered at the local level and be multi-media.

Environmental Insurance for Brownfields Research has been conducted on available insurance products and their utility for brownfield projects. In addition, technical assistance has been provided to state and municipal brownfield programs and instruction has been offered for continuing legal education seminars and other forms of training for brownfields stakeholders. Current efforts include designing model insurance programs for municipal- and state-led redevelopment programs.

Financing Watershed Strategies Training workshops have been developed which promote the coordination of funding and technical assistance programs with innovative financing techniques to support watershed management. Participants explore innovative solutions to multi-jurisdictional and multi-disciplinary issues encountered within a watershed. Network trainings have been held in EPA Regions 10 and 5 and will be held throughout the country in 2001.

Small Business Participation in a Green Business Program A partnership was formed with numerous government agencies and regional Green Business Programs, to examine the barriers and incentives to

Environmental Finance Center Network

printers' and other business participation in a regional Green Business Program. The results of this analysis can be applied to other programs throughout the US.

Smart Growth Planning Network Smart Growth projects include efforts to help an agricultural community preserve its rural heritage. Providing advice for a comprehensive planning effort is part of a county project that will include economic and financial assistance and a financing charrette in spring 2001 focusing on financing land protection initiatives.

EnviroLoan & Strategic Goals Program Projects for the National Strategic Goals Program included developing the Access to Capital EnviroLoan Program – a pollution prevention (P2) loan program for metal finishers. Current work is focused on marketing the Goals Program statewide and with the support of EPA and other Goals participants, seeking legislation to implement a California Strategic Goals Program.

Million Acres Initiative - Open Space Preservation In a state effort that may be replicable, support is being provided to the North Carolina legislature's Million Acres Initiative to conserve land for open space, farmland preservation, riparian buffers and other conservation purposes. Surveys and interviews are being used to assess the amount of land already protected, the rate at which land would be protected over the next ten years at current funding levels, the size of the revenue gap needed to complete the million acre goal, and the funding alternatives potentially available.

Watershed Funding Workshops Three watershed funding workshops were conducted in EPA Region 10. The demand for the workshops was so high that a plan has been established and funded by EPA and the states to offer approximately 20 more workshops within Region 10 in fiscal year 2001.

Sustainable Infrastructure Development This project will define a vision for a Great Lakes regional approach to prioritizing capital investments which sustain the regional system of infrastructure.

Multi-State Assistance to State Regulatory Departments Capacity Development Programs were developed for ten different states to assist water systems with improving their technical, managerial, and financial capabilities. These programs ranged from setting up direct technical assistance to systems, to assisting with partnering between systems and various options in between.

Intergovernmental and Inter-Agency Cooperation The first ever meeting on public funding or watershed restoration efforts was convened in the state of Idaho. This meeting included representatives of EPA, USFS, BLM, Bureau of Reclamation, USACE, USF&W, Bonneville Power Administration, NRCS, ID Dept of Ag, ID Dept of Fish and Game, ID Dept of Water

Resources, ID Dept of Environmental Quality and other private foundations. The purpose of the meeting was to initiate a dialogue on the various funding sources and the match requirements associated with the various programs.

Financing A Cluster Wastewater System As part of a multi-region effort, a charrette was held in Yarmouth MA, to help locate financing for a "cluster" wastewater treatment system to replace septic systems that had been nitrogen-loading the local estuary and its ecosystem. This charrette, an example of a community-planning tool widely used by the network, helped develop a solution that may also be generalized to fit other similarly dense seasonal communities on Cape Cod and other tourist meccas.

WHERE HAS THE ENVIRONMENTAL FINANCE CENTER NETWORK WORKED?

Haven't heard of us? If you haven't already, you probably will soon because the Network is continually expanding its range of services and the states it serves. The following is a list of states that have benefited from our services thus far.

Alabama	Alaska	Arizona	California
Colorado	Delaware	Florida	Georgia
Hawaii	Idaho	Illinois	Indiana
Iowa	Kansas	Kentucky	Louisiana
Maine	Maryland	Massachusetts	Michigan
Mississippi	Missouri	Montana	Nebraska
Nevada	New Jersey	New Mexico	New York
North Carolina	Ohio	Oklahoma	Oregon
Pennsylvania	South Carolina	Tennessee	Texas
Utah	Vermont	Virginia	Washington
West Virginia	Wisconsin		

CONTACT US

Have questions? Please email any one of our officers,

Heather Himmelberger,
President, New Mexico himmelberger@nmeri.unm.edu

Bill Jarocki,
Vice President, Idaho bjarock@boisestate.edu

Kim Collins
Secretary/Treasurer
New York kjcoll01@maxwelli.syr.edu

Visit the EPA National Environmental Finance Program
Webpage,

<http://www.epa.gov/efinpage/>

Or write:

Environmental Finance Center Network
901 University Blvd. SE
Albuquerque, NM 87106-4339

Phone: 505-272-7357
Fax: 505-272-7203



Environmental Finance Center Network

EXECUTIVE SUMMARY

This Executive Summary of the annual report that follows highlights the major accomplishments of the Environmental Finance Center (EFC) Network through 2003. The Network is a university-based technical assistance program offering educational resources and financial outreach services to communities and local governments and the small business community on the how to pay issues of compliance with environmental standards.

To date, the EFC Network comprises nine centers located in Federal Regions at the following universities: University of Southern Maine (Region 1), Syracuse University (Region 2), University of Maryland (Region 3), University of North Carolina at Chapel Hill (Region 4), University of Louisville (Region 4), Cleveland State University (Region 5), New Mexico Institute of Mining and Technology (Region 6), California State University at Hayward (Region 9), and Boise State University (Region 10). The EFCs operates as a national association to foster greater collaboration, enhance project opportunities, and encourage partnerships; as well as to clarify the role of the Environmental Finance Centers as a collaborative network.

Situated in the Office of Enterprise Technology and Innovation within the Office of the Chief Financial Officer, the Environmental Finance Program works with the EFC Network to set priorities and coordinate and plan activities. The financial outreach services of the Network focuses on identifying ways of building the state and local financial and managerial capacity necessary to carry out environmental programs and help create sustainable environmental systems in the public and private sectors as well as increasing private sector investment in environmental systems.

Each year since 1995 the Network has produced an annual report that documents the activities and the results achieved by the EFCs. These annual reports are available via the Office of the Chief Financial Officer's web site at <http://www.epa.gov/ocfo/index.htm> or directly on the Environmental Finance Program's website at <http://www.epa.gov/efinpage/efc.htm>. This website, and the comprehensive and innovative information contained within it, has become a highly effective means of communicating all aspects of the how-to-pay issues confronting the regulated community.



New England Environmental Finance Center at the University of Southern Maine - Region 1

Executive Summary

The EFC at the University of Southern Maine, housed in the Muskie School of Public Service, has a primary focus on land use and conservation issues (EPA Region 1). The purpose of the New England Environmental Finance Center (NE/EFC) is to advance the understanding and practice of "smart growth" throughout New England; in building local capacity to deal with related issues; and in developing and applying techniques that go "beyond compliance" with government regulations.

Among the 2003 accomplishments of the NE/EFC's work program was a high-risk loan funding initiative to stimulate smart growth projects, a series of roundtable discussions among public and private officials dealing with conservation-development partnerships, creation and delivery of an ecology and design course module, planning, prepared and hosted the Governor's conference on encouraging natural resource-based industries as a bulwark against sprawl and consumptive land use patterns that produced a series of papers for the state's natural resource agencies, and an evaluation and report of the State of Maine's open space acquisition and protection program, which will be presented for consideration in time for the convening of the state legislature in 2004.

The EFC prepared and hosted the Governor's conference on encouraging natural resource-based industries as a bulwark against sprawl and consumptive land use patterns that produced a series of papers for the state's natural resource agencies

In addition, several bold initiatives will continue into 2004. *The Next Communities Initiative* is an example of the effective use and implementation of Smart Growth tools at the local government level. Through a series of workshops, the Initiative will train motivated community leaders to make smart growth-oriented development happen in their cities and towns with a goal to deliver the curriculum throughout the New England states.

Another continuing project is the standardization and availability of data from the GIS inventory of protected lands. The EFC will be creating a web portal as a means of collecting data on parcel status. The EFC will work with State agency staff to identify incentives that will elicit local data entry, determine initial and ongoing costs; ensure implementation of incentive programs; and to assure that data uptake and authorization is functioning throughout the six-state "virtual state."



Syracuse University Environmental Finance Center - Region 2

Executive Summary

A key activity of the EFC is the *Public Management and Finance Program* (PMFP), which provides a forum for municipal professionals and leaders from EPA Region 2. PMFP forums enable communities to better understand the relationship environmental finance has with other areas of government business, particularly economic or community development. The alliances and collaboration among technical assistance providers has been very instrumental in removing the gaps in the delivery of technical assistance, although all partners of the PMFP are

The PMFP alliances and collaboration among technical assistance providers has been very instrumental in removing the gaps in the delivery of technical assistance, although all partners of the PMFP are cognizant that the cumulative needs among communities exceed the resources available.

cognizant that the cumulative needs among communities exceed the resources available. Other services provided by the EFC during 2003 included assistance with rate setting assistance, facilitation of processes relative to environmental improvement, training events focused on environmental issues, and analyses of funding options.

The water and wastewater related activities of the EFC's PMFP have received additional support from the USDA over the past two years, with the bulk of activities involving municipal water and wastewater projects to facilitate the planning, financing, and implementation phases. In addition, the EFC targeted the smallest communities of New York State for training and capacity building initiatives. Another project includes source water activities that have led to interest from a private foundation to support building upon the work accomplished through EPA support. The Syracuse EFC also assisted the Onondaga Lake Partnership, which consists of six government agencies (including EPA) and numerous nonprofit organizations. The assistance involved facilitating a particular decision-making process relative to carrying out the plans to clean up heavily polluted Onondaga Lake.

Among other accomplishments, the EFC held Technical Assistance Partnership Forums to maximize resources available for small communities; stakeholder outreach and education for communities pursuing water and wastewater projects; and PMFP customized training for small communities in the areas of public finance, capital planning and budgeting, rate setting, asset management, environmental conflict management and resolution, project financing procedures and regulations; and the introduction of new technologies.



University of Maryland Environmental Finance Center - Region 3

Executive Summary

The Environmental Finance Center at the University of Maryland, draws from a wide range of expertise including scientists, planners, engineers, citizen advocates, business professional and local government representatives. The EFC promotes ways to manage the cost of environmental activities through technical assistance, training and curriculum development, and outreach activities such as workshops, charrettes and conferences.

Technical assistance is an important element of the EFC's accomplishments for 2003. Among the EFC's activities was a smart growth initiative to assist local governments on Maryland's Eastern Shore address increased development pressure as a result of population growth in the region. Another venture is the Anacostia River project to discuss how the restoration and protection of the Anacostia could be made profitable for businesses. In

the area of watershed financing, the EFC customized its *Financing Watershed Strategies* workshop to respond to the needs each local jurisdiction in developing an individualized financing plan. Also, noting that the market for nutrient trading is a largely untapped opportunity, the EFC hosted a two-day workshop that outlined the barriers to establishing a

...the Anacostia River project discusses how the restoration and protection of the Anacostia could be made profitable for businesses.

nutrient trading market in the Potomac watershed and determine how those barriers can be overcome. Over 35 people from around the watershed and as far away as New Mexico and Missouri, came to the workshop, which produced several concrete recommendations and next steps. Other watershed projects included the Chesapeake Watershed dialogues to foster local watershed management in the Chesapeake Bay basin, and assisting a Blue Ribbon Panel commissioned by the Governors of Maryland, Virginia and Pennsylvania to explore financing options for reducing nutrient and sediment inputs to the Chesapeake Bay.

Training is another key function of the EFC's activities. The EFC Training Coordinator conducted numerous on-site training sessions throughout the Region covering such subjects as capital improvements planning, financial and general system management for small systems, rate setting and cost recovery, and asset management. In addition, the EFC's communication and outreach services included the planning and development of many training conferences that attracted not only audiences from Region 3, but offered valuable training to participants from other regions as well.



**University of North Carolina at Chapel Hill
Environmental Finance Center - Region 4**

Executive Summary

The Environmental Finance Center at the University of North Carolina at Chapel Hill (UNC EFC) works with local communities and government agencies throughout EPA's region 4 to address environmental management challenges by developing innovative financial management and environmental policy strategies and systems.

The EFC's work in the delivery of interactive applied training programs and technical assistance to local communities is among its major accomplishments for 2003. Some training workshop subjects include: management of on-site wastewater treatment systems to enable local governments to manage and finance these systems; a water and wastewater capital finance course for local government utility, management, and finance officials; development and delivery of a water and wastewater utility finance training module, design and implementation of a water and wastewater rate setting workshop for utility professionals; financial management seminars for utility managers; hosted an intensive one-day workshop for solid waste managers and attorneys from across North Carolina; delivery of an EPA-sponsored workshop on financial management to a group of technical assistance providers from Regions 4 and 6; presentation on water management financial issues to a group of community development professionals; and development and integration of environmental management concepts into UNC School of Government's financial management training for the hundreds of local government finance and budgeting professionals that take these courses annually.

A key area of involvement for the EFC has been its work to assess and improve the effectiveness of environmental finance policies at a regional or state level.

In addition to training, the EFC devoted a significant amount of resources in 2003 to providing direct technical assistance to practitioners throughout the Southeast. Another key area of involvement for the EFC has been its work to assess and improve the effectiveness of environmental finance policies at a regional or state level. Among these policy efforts was a drinking water and sewer infrastructure needs assessment for the Appalachian Regional Commission (ARC); information on the costs and financing strategies for land conservation for the North Carolina General Assembly's Environmental Review Commission; development of collaborative strategies for land trust networks; expanding and developing financing systems for land conservation efforts in North Carolina; inventory and assessment of DWSRF loan programs for disadvantaged communities; and review and development of options for addressing agricultural waste disposal challenges.

UofL University of Louisville Environmental Finance Center - Region 4

Executive Summary

The Louisville EFC broadened its training and technical assistance services relating to brownfield regeneration and planning for more environmentally and economically efficient market-driven human settlements in 2003. In addition to expanding its Practice Guides series of briefing papers for local officials and citizen volunteer committee members, the Center again staffed a booth providing information on the economics of brownfield cleanup and redevelopment at the annual EPA *Brownfields 2003* conference, in Portland, Oregon, November of 2003.

The Louisville EFC also expanded the provision for direct technical assistance with respect to contaminated land revitalization, working with a number of different cities on brownfield redevelopment, with smart growth planning for area development agencies, and with the Environmental Justice

...brownfield redevelopment...focus was on financial planning and prioritization to maximize private investment potential and reduce the need for public funds...

Demonstration Project in Spartanburg, South Carolina. The focus was on financial planning and prioritization to maximize private investment potential and reduce the need for public funds and donations; and with Region 4 RCRA specialists on ways of providing greater certainty over firms' financial capacity to remediate after completing ongoing operations. These expanded applications of the EFC's contaminated land expertise are reflected in our new Working Papers, other staff publications, conference presentations, and conduct of related research and technical assistance projects.

The Louisville EFC's Practice Guide series is focused on aspects of land use planning and information system development for promotion of urban infill, brownfield redevelopment and other aspects of smarter urban growth. The Center has also provided training and technical assistance through a range of other publications and presentations. Publications span professional journals, trade press and academic outlets, since all influence policy discussions and can contribute to more effective and cost-efficient environmental finance practice.

New initiatives include planning for the *International Conference on Local Sustainable Development Efforts* 6th International Symposium of the International Urban Planning and the Environment Association (IUPEA), which was initiated by the EFC in 2003. The Symposium will be held in Louisville, September, 4-8, 2004, with the overall theme of *Global Pressures on Local Autonomy: Challenges to Urban Planning for Sustainability and Development*.



Cleveland State University Great Lakes Environmental Finance Center - Region 5

Executive Summary

The Great Lakes Environmental Finance Center (GLEFC) assists communities and public, private, and non-profit sector entities in the Great Lakes states of Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin build innovative, cost effective, and high quality strategies for environmental improvement and sustainable economic development.

The GLEFC is housed within the Maxine Goodman Levin College of Urban Affairs at Cleveland State University to provide technical assistance and training in environmental financing for state and local governments, as well as public, private, and non-profit organizations in the Region 5 states.

The GLEFC utilizes many tools to assist clients, including financial and budget analysis, market and impact analysis, best practice reviews, training seminars and conferences, focus groups and community visioning/strategic planning processes, and environmental planning and program evaluation.

The EFC assists these entities in solving financial problems related to environmental facilities and resources. Services include financial and economic analysis and strategies; policy analysis and planning; brownfields community advisory services; study and information services; and training seminars and conferences. The GLEFC utilizes many tools to assist clients, including financial and budget analysis, market and impact analysis, best practice reviews, training seminars and conferences, focus groups and community visioning/strategic planning processes, and environmental planning and program evaluation.

The GLEFC portfolio of ventures included several new projects, ongoing partnership enterprises that will continue indefinitely, and second and third phases of externally funded projects. The GLEFC provided technical assistance, applied innovative technology, seminars, training, counsel, and testimony to local, state, federal; and not-for-profit organizations and clients throughout Region 5. The GLEFC continues to provide support to the Federal Executive Board of Northeast Ohio in facilitating an intergovernmental (federal, state, and local) collaboration on brownfield finance and redevelopment, now on a state-wide basis. The GLEFC is working with EPA's Region 5 Brownfields Office to assist in initiating regional brownfield collaboration. In addition, the GLEFC is working on a broad array of environmental public policy initiatives that are externally funded, multi-stage, and multi-client projects with the Ohio Department of Natural Resources, the National Oceanic and Atmospheric Administration (NOAA), and the National Estuarine Research.



Environmental Finance Center - Region 6

Executive Summary

The Environmental Finance Center serving EPA Region 6 (NM EFC) formally completed its transfer from the University of New Mexico to the New Mexico Institute of Mining and Technology (New Mexico Tech) in June of 2003. The New Mexico EFC (NM EFC) believes this change will open up additional opportunities for its clients and will increase the overall support for the center.

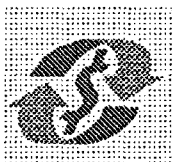
The NM EFC is dedicated to helping state, local, and tribal governments meet environmental infrastructure needs and regulatory compliance through state and local capacity building. Capacity building includes enhancing technical, managerial, and financial capabilities to achieve consistent and sustainable regulatory compliance and to develop sustainable infrastructure. The

NM EFC assists in local capacity building by: examining alternative approaches to meeting regulatory compliance or environmental infrastructure needs; empowering communities to act as the "drivers" for their own projects; assisting with procuring professional services; presenting funding alternatives; acting as a bridge between federal, state, local and tribal governments; presenting neutral analyses of issues or projects; and gathering stakeholder input.

The Environmental Finance Center serving EPA Region 6 (NM EFC) formally completed its transfer to the New Mexico Institute of Mining and Technology (New Mexico Tech) in June of 2003.

To complete its projects, the UNM EFC relies on many tools and techniques, including: stakeholder meeting facilitation; internal agency workgroup facilitation; advisory group development; financing alternatives presentation and directories; technology transfer; charrettes, conferences and workshops; research publications and reports; and one-on-one assistance to state, local, and tribal governments and environmental service providers (e.g., water and wastewater systems.). The NM EFC attends many conferences, trainings and workshops as a participant, exhibitor, and presenter to gather information to share with its clients and to disseminate information regarding NM EFC projects that could be of interest and benefit to other entities.

The NM EFC has been very active over the past year and has completed numerous projects, including: capacity development activities for Region 6 states; capacity development for Tribal water systems; assistance to New Mexico SRF applicants; resource-based or unified source water protection project; Tribal Operator Certification Institute; independent analysis of hydroscope technology for the City of Albuquerque, NM; Resource Geographic Information System Program; purchase of the town of Playas, NM; and Multiple Barrier Evaluation Training for U.S. Forest Service.



California State University, Hayward Environmental Finance Center - Region 9

Executive Summary

The Environmental Finance Center located in Region 9 at California State University (EFC9) is a university-based EFC working for greener communities through cleaner business, by advancing the environmental industry and promoting pollution prevention and source reduction. Our mission is four-pronged: to help entrepreneurs develop and finance new and innovative environmental technologies; to encourage small business to adopt source reduction and pollution prevention in the manufacturing processes; to educate and encourage consumers to choose green business and green business products, and to help federal, state and local governments establish the necessary tools to foster cleaner business. To that end, working with both the private and public sectors, EFC9 pursues its mission through numerous tools including: Green business development; environmental business incubation; finance programs & directories; industry surveys & guides; technology transfer; charrettes, conferences and workshops; research publications and reports, and hands-on assistance to small business.

The Region 9 EFC at California State University (EFC9) works for greener communities through cleaner business, by advancing the environmental industry and promoting pollution prevention and source reduction.

Throughout the past year EFC9 has undertaken six new and one ongoing initiative working with both the private and public sectors. As a result, much of the work in 2003 laid the groundwork for project results and events in 2004. Those projects include: brominated flame retardants and foam furniture and mattresses; Western States Green Business Program (GBP) coordination, a voluntary program in which the GBP certifies applicants who comply with federal, state and local environmental regulations; business and environment in Hawaii, focusing on hotels with an emphasis on waste reduction and water conservation; environmentally beneficial behavior in television by adopting the private sector concept of "product placement" to place environmentally beneficial behavior (EBB) in television shows; assistance to environmental businesses; Phoenix Arizona brickyard charrette; and the Western Regional Pollution Prevention Network Conference workshop and sessions.

Among new initiatives for the EFC is a partnership with the Western Regional Pollution Prevention Network, to begin an effort to introduce pollution prevention and green business principles to Tribal governments throughout the region.



Boise State University Environmental Finance Center - Region 10

Executive Summary

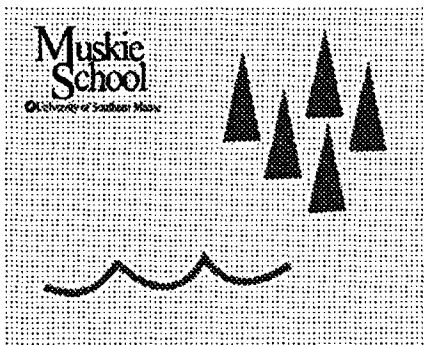
The primary focus of the Environmental Finance Center at Boise State University (EFC10) is the development of broadly applicable, practical tools that improve the efficiency and effectiveness of environmental systems in meeting the challenges of protecting the environment and public health. The EFC creates computer-based techniques that provide important information for decision makers to use in financing environmental systems.

Among the EFC's accomplishments for 2003 was a focus on watershed financing activities such as: numerous watershed funding workshops in Oregon, Washington State and Alaska. Also facilitated a Charrette to coordinate the various EPA program staff and identify how different programs can better

work together to leverage resources and maximize benefits to watershed stakeholders; created an on-line, searchable Directory of Watershed Resources for watershed restoration funding; worked to extend the function of the database for use in Region 4; developed *Plan2Fund*, a database model that walks users through the process of estimating the costs of their Watershed Program Plan's goals and objectives. Additional accomplishments included collaborating with the EFCs at the Universities of New Mexico, North Carolina, Syracuse and Maryland on a project related to source water protection project funded by EPA; drafted a Drinking Water Protection Plan for the three Oregon communities; and creation of an informal group in Idaho that meets to share information on source water protection issues and efforts.

EFC10 developed *Plan2Fund*, a database model that walks users through the process of estimating the costs of their Watershed Program Plan's goals and objectives.

As the demand for information on funding resources and financing tools has increased, EFC10 is often contacted by agencies and organizations that would like them to participate in conferences, meetings and various watershed events. To name a few of these events, EFC10 participated in a pilot project to assist the City of Ho Chi Minh in devising new strategies and methods for working collaboratively with the community, citizens, environmental groups and business leaders to leverage community pressure and market forces to meet environmental challenges. In another event, EFC10 participated in the "Funding for Watershed Restoration" satellite program presented by Washington State University. The two-hour program was broadcast via satellite and Internet on November 18th, 2003. Also during 2003, the Center released the first issue of *The Watershed News*, a quarterly newsletter for watershed stakeholders within Region 10 designed to provide watershed stakeholders with information and resources to assist in finding innovative ways to pay for watershed protection.



2003 Annual Report of the Environmental Finance Center Network

Region 1 - The University of Southern Maine

*The University of Southern Maine was
established in 2000 as the Region 1 New
England Environmental Finance Center*

Introduction

The EFC at the University of Southern Maine serves the six New England states (U.S. EPA Region 1). The purpose of the New England Environmental Finance Center (NE/EFC) is to further the joint goals of the U.S. EPA and the Muskie School of investigating, publishing, and extending creative approaches to environmental protection and management, especially respecting the associated "how-to-pay" questions. In particular, the Center works to advance the understanding and practice of "smart growth" throughout New England; in building local capacity to deal with related issues; and in developing and applying techniques that go "beyond compliance" with government regulations.

The NE/EFC at the University of Southern Maine, housed in the Muskie School of Public Service, has a primary focus on land use and conservation issues. The NE/EFC began its activities 2001 and since then has undertaken a broad range of initiatives in the intervening three years. Calendar year 2003 was a period of considerable activity in numerous areas.

Accomplishments

Projects

High-Risk Loan Funding Initiative

Among the findings of the New England Environmental Finance Center's 2002 work program was the need for loan and grant programs to stimulate smart growth projects by covering expenses of up-front design studies, impact analyses, and other pre-development expenses. In response, a NE/EFC project examined several development finance programs that already exist in New England; assessed their strengths and weaknesses in promoting smart growth; and suggested ways the New England states might adapt and expand them to more fully address the obstacles to smart growth. For a copy of the report from this project, go to: <http://efc.muskie.usm.maine.edu/Developer%20Incentives.htm>.

Trust, Collaboration, and Financial Return in Conservation-Development Partnerships

In early 2002 the NE/EFC hosted a series of roundtable discussions among municipal officials, residential developers, land trust representatives, and others about "*Innovative Approaches to Land Conservation and Smart Growth*." Among our conclusions was that for many of the over 20 conservation-development partnerships we discussed in the series, creation and maintenance of trust was essential to success or failure in various stages of smart growth development. This indicated a link between the creation of trust and the return on value for traditionally opposed project partners. To further examine this matter, we interviewed 11 roundtable participants and asked questions about key moments in the course of the project where the main financial benefits or losses were realized; and about specific behaviors (by them or others in the partnership) that led to creation or dissolution of trust. The report from the study describes 1) the roles of developers, land trust representatives, and municipal officials in the projects involved; 2) behaviors project partners felt were central to creation or dissolution of trust; and 3) particular financial benefits that were obtained in these partnerships, and should be attainable in other conservation-

development partnerships where trust is cultivated. The report is available at: http://efc.muskie.usm.maine.edu/Trust_and_Risk.htm.

Ecology and Design Course Module.

Through the Muskie School master's degree program in Community Planning and Development, staff of the NE/EFC created and delivered an upper-level college and graduate-level teaching module in fundamental principles of conservation biology and landscape ecology, and their role in sound local land use planning. The module is available in a format useable by universities, conservation organizations, and other interested parties; go to:

http://efc.muskie.usm.maine.edu/Landscape_Ecology_for_Planners_files/frame.htm

Blaine House Conference on Natural Resources

In his 2003 budget address to the Legislature, Maine Governor John Baldacci promised to bring together local residents, industry representatives, conservationists, sportsmen and sportswomen, and recreational users, to address the needs of Maine's distressed natural resource-based industries. These industries are the economic foundation of Maine's rural communities, and their vitality is the state's strongest bulwark against sprawl and consumptive land use patterns.

In March 2003, Governor Baldacci convened a Natural Resource-based Business Summit of industry leaders to identify issues and concerns within each of the natural resource sectors. The summit sparked a dialogue. It became clear that these industries share common problems, such as declining access to the resource base, the lack of a sustainable view of development, and the need for credible and timely scientific information. The way to tackle these is to stop thinking of the fishing, farming, forestry, and tourism sectors as distinctly different, independent entities. Summit participants realized they needed a strategic analysis of their industries and a shared understanding of the problems that each faces.

Under chairmanship of NE/EFC Director Richard Barringer, eight months of planning and preparation led to a November 2003, "Blaine House Conference on Natural Resource-based Industries," with a focus on agriculture, aquaculture, fishing, forestry, and tourism and outdoor recreation. From July to September 2003, six background papers were produced, one for each sector and one on cross-cutting issues, each authored by an acknowledged expert in the field, in collaboration with the responsible state agencies. The papers examined economic trends, strengths, challenges, and opportunities of each sector. They were designed to challenge traditional ways of thinking, and to identify new ideas to position fishing,

aquaculture, farming, forestry, and tourism/recreation each as a long-term, sustainable natural resources-based industry. The papers also provided a starting point for extensive outreach and discussion with industry representatives.

The state's natural resource agencies then used the papers to engage their important constituencies, to test the assumptions set forth, and to prepare strategies for strengthening each of the sectors. Hundreds of business leaders, industry representatives, managers, environmental and trade associations, and others within these sectors offered their best thinking about how government and industry might work together to achieve shared goals. The dialogue led to a series of specific action recommendations that the agencies put forward for consideration by the Conference participants.

On November, 17, 2003, nearly 750 people from across the industry sectors met in Augusta, Maine. Participants considered specific proposals to enhance each industry sector, as well as an array of issues that spanned all five sectors. The dialogue sparked new ideas, modified proposals, and confirmed many of the new approaches presented. The Governor's goal – that from the conference might emerge a practical plan of action based upon new thinking, integrated policymaking, broad support, and active participation from Maine citizens who make their living within the natural resources sectors – was realized. The conference shaped 75 proposals to strengthen these businesses that are presented in a report available at: <http://efc.muskie.usm.maine.edu/docs/NaturalResourcesConferenceReport.pdf>

The EFC Director has been invited by the governor to chair a committee of state officials and inter-industry leaders to oversee implementation of the 75 recommendations by the State and private sector.

Land for Maine's Future Evaluation

In 2003 the NE/EFC led an effort to evaluate the State of Maine's "Land for Maine's Future" program (LMF), which had spent \$85 million in state bond proceeds for open space acquisition and protection. Within the constraints of available time and resources, the NE/EFC proposed the following tasks, to be completed by the close of 2003 in time for the convening of the Legislature in January 2004:

- That it undertake an external review of the LMF staff's own analysis of the LMF program, in terms of its deployment of resources and its progress since a 1997 Land Acquisition Priorities Advisory Committee report and the recommendations set forth therein;

- That it attend for information purposes several of the "constituency group outreach meetings" conducted by the LMF staff in Summer and Fall 2003;
- That it consult about the performance and impact of the LMF program with a dozen mutually-chosen expert individuals from various sectors and who have significant knowledge as users or observers of the program, and report on its findings;
- That it undertake case studies of not less than three mutually-chosen Maine communities, to examine the economic, social, and developmental impacts of LMF program use;
- That it scan and report on findings of academic and professional studies of the economic, social, and land management impacts of LMF and other comparable land conservation and purchase efforts; and, finally,
- That it provide an integrated report, including findings and recommendations, based upon its external review of the staff analysis, observations at the outreach meetings, expert consultations, literature review, and case studies.

What follows is that report:

The January 2004 report found the LMF program to be well-conceived, wisely administered, and widely supported. Participants and observers from across the state agreed that its mission and practices are solidly grounded; that it has avoided becoming politicized; and that it has evolved thoughtfully to respond to new understandings of the role of land conservation and economic development in Maine. The general perception is that LMF well and truly serves the people of Maine. In general, it was observed to be a fine example of a public *learning organization*: open and transparent in its processes; welcoming of public participation and input; careful and strategic in its investment of public monies to achieve the highest public values; and reflective and adaptive to changing circumstances and public needs.

The NE/EFC evaluation concludes that Maine land conservation especially under LMF is rightly to be viewed as a *basic infrastructure investment* in the future of Maine's environment, economy, and cultural heritage. Like our rail and highway systems, it is a foundation upon which coming generations of Maine people will build their economy and culture, to reflect Maine values, needs, priorities, and diversity. To realize the greatest return on this investment, Maine people might best regard the LMF not as an end in itself, but as a tool or instrument of their larger, abiding purposes: sustainable economic development, environmental stewardship,

and community building. The NE/EFC observed that there continues to be urgent need for a state-funded land conservation effort in Maine, for which there is broad public support; that LMF both deserves and needs to continue its efforts for the foreseeable future; and that new funding is needed at this time, to continue this important effort. The LMF report is available at: <http://efc.muskie.usm.maine.edu/docs/LMFevaluationreport.pdf>

Initiatives/Proposals

Next Communities Initiative

From model ordinances to financial instruments, a wide variety of smart growth tools are now available to local land use decision makers and stakeholders. The piece of smart growth that the Next Communities Initiative will address is the effective use and implementation of these tools at the local government level. The Initiative will train motivated community leaders to make smart growth-oriented development happen in their cities and towns. The first step in the Initiative is development of a workshop at which participants may come to understand that change toward more sustainable land use is both desirable and possible; to gain an understanding of the intricacies and subtleties of local government and politics; and to explore the obstacles to smart growth and how they may be overcome at the local level. The workshop will be more about shepherding smart growth through the democratic process than about the principles and tools of smart growth, themselves.

In fall 2004 the NE/EFC will conduct two pilot workshops in collaboration with partner organizations established through a competitive proposal process. One partner will be from the Northern New England states (Maine, New Hampshire, and Vermont), and the other, from the Southern New England states (Rhode Island, Connecticut, and Massachusetts).

In each pilot workshop there will be three day-long sessions:

Session One: Participants will come to understand "sprawl" not as a technical problem, but as (in Maine terms) a "wicked" problem – one that is ill- and variously-defined, features a lack of consensus on its causes, and lacks obvious solutions that don't involve challenging trade-offs and fierce, value-based opposition. Participants will gain insights to become informed leaders in the discussion of sprawl, and advocates of solutions that seek a wider public good without undue injury to private interests and concerns. The intent is for participants to leave this session with a mind set that smart growth is an objective worthy of pursuit, and ready to explore how to navigate change through the local political system.

Session Two: This session will educate individuals about local government processes, both formal and informal. It will help those interested in changing local land use policies understand the twists and turns of local government, what motivates and constrains it, how to mobilize and support the town's opinion leaders and citizens, and how to navigate the system to effect change.

Session Three: Conflict most often attends change. This session will teach community leaders basic skills to deal constructively with conflict over both basic values and perceived interests. It will prepare them to treat both personal and social conflict in the community setting. It will also include a final capstone game where the skills, ideas, and information learned in the previous sessions will be applied to a practical case.

After these pilot workshops, it is a goal to collaborate with different partners in each of the New England states to deliver the curriculum in varied settings.

GIS Inventory of Protected Lands Data

For several years EPA Region I has recognized that among the factors preventing sound land use planning in New England is the absence of high quality, standardized geographic data about which lands are protected, and which are available and appropriate for development. To address this need, in 2001 the NE/EFC sponsored a feasibility study of a New England-wide, GIS-based inventory of protected lands. Over 50 agencies and individuals involved in GIS management in New England were interviewed, and a comprehensive assessment of the status of protected lands data in New England was provided by the Boston firm, *Applied Geographics, Inc.* The conclusion reached was that while it is both feasible and highly desirable to develop the inventory, most of the possible benefits will not be realized until data standardization and enhancement occurs simultaneously in *each* New England state. In addition, what was determined to be most lacking was a good mechanism for data uptake, so that data sets will retain their currency over time.

In 2003, the NE/EFC took the next steps in this project, by beginning to create a web portal as a means of collecting data on parcel status; work continued with Applied Geographics, Inc. as the primary technical contractor. The portal will be operational for a small region spanning the Maine/New Hampshire border by late 2004. Subsequently, the NE/EFC will work with State agency staff to identify incentives that will elicit local data entry, and to determine initial and ongoing costs; to develop a work plan to secure these funds from a variety of sources, primarily federal; to

ensure implementation of incentive programs; and to assure that data uptake and authorization is functioning throughout the six-state "virtual state."

Public Management and Finance Program

Most problems of local government – not just environmental – involve issues of public finance, or "how to pay." To plan for the future well-being of rural communities, it is imperative that decision-makers and public managers use resources in a manner that most efficiently and effectively responds to identified community needs. It is also imperative that stakeholders and constituency groups be integrated into the planning and implementation processes, to promote "ownership" in shaping the future. In collaboration with several EFCs, and with the Region 2 EFC taking the lead, a proposal was submitted to USDA to fund continuation and expansion of the Region 2 EFC's Public Management and Finance Program (PMFP).

In numerous communities in Region 2, the PMFP has brought technical assistance providers together to more efficiently deliver technical assistance to rural communities. It has also helped promote learning and application of integrated approaches to addressing environmental concerns of rural communities, and provided hands-on technical assistance to rural communities through development of teams of technical assistance providers. The teams are composed of representatives from nonprofit, academic, government, and private organizations that have established histories in providing technical assistance to rural communities.

In Maine, substantial gaps in coordination exist among providers of technical assistance to rural communities. If PMFP expansion is funded through the pending request to USDA, the program will be established on a pilot basis in three rural Maine communities, and opportunities for expansion of the program in Maine will be pursued. It is expected that strengths of the EFC Network will be invaluable in this collaborative effort, and that the experience of the Region 2 EFC and others will help the Maine PMFP develop more efficiently.

Presentations, Conferences & Meetings

- As part of the NE/EFC's Collaborative Environmental Services initiative, in June 2003 the EFC delivered a day-long training workshop on "Collaborative planning and conflict management skills" for the Maine NEMO (Nonpoint Education for Municipal Officials) program in Hallowell, Maine.
- Initiated a public lecture series, entitled "Changing Maine, 1960-2010," designed to formulate and give circulation to a new, basic understanding of Maine and its

place in the world today, and to guide civic life and dialogue in the coming decade. The focus of each lecture and the series is on policy and policymaking as they have exerted influence on events. Topics addressed by experts in the series include energy, the environment, land use and sprawl, forestry, agriculture, and fisheries, and 16 others. The lectures are broadcast by Maine Public Radio to a listening audience of approximately 15,000 persons in Maine, New Hampshire, and northern Massachusetts; and will be published in their entirety as a book by Tilbury House in June 2004. The published work may then serve as the basis for public forums and study groups, instructional materials for high school seniors, college students, and adults, etc. Text of the lectures is available on-line at <http://www.muskie.usm.maine.edu/changingmaine>

- NE/EFC staff participated in a smart growth policy forum at the Lincoln Institute for Land Policy. Discussed current status of smart growth efforts throughout New England and identified possible areas for future research and collaboration with the NE/EFC (October 2003).
- Moderated a 2-hour conference session on "Why businesses should be interested in smart growth", specifically addressing issues of affordable housing, downtown revitalization, quality of life, and transportation/distribution systems (October 2003).
- Delivered a training presentation titled "Financing Sourcewater Protection" to a 100-person audience in Worcester, MA, at a conference organized by Clean Water Action (October 2003).
- Gave a presentation to a group of Cooperative Extension water educators from the six New England states, on water-related plans and possibilities at the NE/EFC (November 2003).
- Moderated a 2-hour session on Land Protection in Maine, for the Maine Chapter of the Appalachian Mountain Club. Speakers and the discussion focused on these questions: 1) Why is so much land in the north Maine woods being sold? 2) Is this a problem and why? 3) What efforts to protect this land are being made? Is this enough? What else could be done? (December 2003).





2003 Annual Report of the Environmental Finance Center Network

Region 2 - Syracuse University Maxwell School of Citizenship and Public Affairs

The Maxwell School at Syracuse University was established in 1993 as the Region 2 Environmental Finance Center. The EFC serves the States of New York and New Jersey as well as Puerto Rico and the U.S. Virgin Islands.

Introduction

The EPA Region 2 Environmental Finance Center (EFC) at Syracuse University's Maxwell School of Citizenship and Public Affairs was established in 1993. During 2003, the Maxwell EFC continued to build a considerable record of accomplishment. The *Public Management and Finance Program* (PMFP), which is now considered the hallmark project of the EFC, continues to thrive along with requests for other EFC services. The PMFP has been very well-received by communities in New York because it enables communities to better understand the relationship environmental finance has with other areas of government business, particularly economic or community development. The alliances and collaboration among technical assistance providers has been very instrumental in removing the gaps in the delivery of technical assistance, although all partners of the PMFP are cognizant that the

cumulative of needs among communities exceed the resources available. Other services provided by the EFC during 2003 included assistance with rate setting, facilitation of processes relative to environmental improvement, and training events focused on environmental issues, and analyses of funding options.

The water and wastewater related activities of the PMFP have received additional support from the USDA over the past two years. The bulk of activities performed under the USDA grant involved specific municipal water or wastewater projects in which there was a need to facilitate the *processes* involved in the planning, financing, and implementation phases. In addition to the process facets of specific projects, the EFC targeted the smallest communities of New York State for training and capacity building initiatives. The EFC ended the year with the submission of a proposal to the USDA Technical Assistance and Training Program (TAT) to include five other EFCs (KY, ME, MD, NC and NM) in the PMFP water and wastewater activities. This is the third year that the proposal has been submitted for multiple EFCs. It is hoped that the USDA will see the value and have the means to support a project implemented by the Environmental Finance Center Network, although it is understood that funding for such programs has declined due to homeland security and other national budgetary priorities.

An important area of need emerged in 2003 specific to water and wastewater public education and outreach relative to the costs associated with water. Although the EFC has always included educational components in its work, it has never focused extensively on the creation of public education strategies beyond the provision of basic facts. In New York, and probably throughout the country, appropriate public education methodology is an absolute must if American culture is ever going to treat water as a resource with a cost. EFC clients consider public perceptions of water as significant obstacles to the development of much-needed water and wastewater projects. The lack of understanding about water issues is a harsh impediment to progress when local governments seek to build or improve water systems. Local governments typically do not have the capacity to provide water-related education to the range of individuals within the public. Public outreach is not included in training events as something as important as public finance, capital budgeting, and all other important topic areas.

Of equal importance during 2003 were activities associated with the Source Water Protection project, performed under the leadership of the New Mexico EFC. The source water activities have led to interest from a private foundation to support building upon the work accomplished through EPA support. The EFC also provided assistance to the Onondaga Lake Partnership, which consists of six government agencies (including EPA) and numerous nonprofit organizations. The assistance involved facilitating a particular decision-making process relative to carrying out the plans to clean up heavily polluted Onondaga Lake. The EFC expects 2004 to be a year in which past and present efforts will be built upon and continue to flourish.

On-Going Activities and Projects

- Attendance at professional association meetings and presentations about the EFC Network, and topic-specific issues including capital planning and financing, the concepts of water and wastewater rate setting, collaborative planning, capacity building, and sustainable community development.
- Participating in planning prospective projects with government, nonprofit, and private sector partners of the Public Management and Finance Program. This includes projects that can receive support from private foundations.
- Collaborating with other technical assistance organizations to provide assistance to rural communities seeking to address environmental infrastructure improvement projects
- Serving as a content provider to government and non-profit organizations that provide assistance and conduct workshops for municipal decision-makers.
- Continued emphasis on collaborating with other universities and non-profit organizations to develop proposals addressing environmental concerns, particularly those relating to water issues but also including brownfields redevelopment, lead contamination, and more.
- Responding to requests from communities for assistance ranging from how to finance major water system repairs and how to develop capital budgets for environmental improvements to conducting focus groups to elicit public input or assess public awareness and support of environmental projects.
- Continuation of tasks and activities relative to specific projects, such as the Source Water Project, rate analysis, and customized forms of assistance in cost recovery.

Accomplishments

Public Management and Finance Program (PMFP)

Since EFC 2 was established at the Maxwell School, it has become a resource for municipal professionals and other community representatives through a variety of presentations, workshops, and interactive forums. The *Public Management and Finance Program (PMFP)*, officially launched in April 2001, has served as a means for municipal professionals and

leaders from EPA Region 2 communities to learn, explore, and discuss public finance and other issues relative to environmental improvements. The PMFP has become the hallmark project of EFC 2 and has received funding from the USDA's Rural Utility Services Technical Assistance and Training grant program to support some of its water and wastewater activities.

During 2003, the PMFP continued to respond to requests from local government leaders to integrate new activities into its core components. First, the PMFP responded to requests from local government officials to hold topic-specific forums on a quarterly basis for local officials for the purpose of learning pertinent environment-related information. The first forum was planned for February, 2004. The guest speaker was a representative of the New York State Office of the Comptroller, with inter-municipal agreements the topic. The importance of this is a direct result of abutting communities finding that if they plan water and wastewater projects cooperatively, the costs can be substantially less. Unfortunately, many local government leaders are unaware of the range of legal and procedural issues involved.

The February forum will focus on a brief presentation regarding successful and unsuccessful attempts to create inter-municipal agreements, followed by a facilitated discussion concerning the requirements and suggested actions otherwise. EFC 2 will be engaging private sector engineering and finance firms to contribute to the sponsorship of these forums. Aside from the monetary value of providing support to the forums, the private sector has significant expertise to offer and will be asked to supplement some of these sessions with presentations and discussions about their experiences as appropriate and fitting to selected topics.

There is little change from 2002 in the primary functions of the PMFP to facilitate partnerships among technical assistance community, provide public outreach and education relative to environmental improvements, and training to local government officials and technical assistance providers. These three functions, or components, of the PMFP can be critical links to the ability of a community to successfully develop a project. The sub-sections below identify those links. (Refer to the 2002 Annual report for additional information about the components.)

Technical Assistance Partnerships

The EFC sponsors quarterly Technical Assistance Partnership Forums for the purpose of promoting and sustaining collegial relationships among technical assistance providers (TAPs) who very often find themselves working in the same community. During 2003 the Forums were attended by an average of 35 TAPs representing an average of 22 nonprofit, government, private, and academic organizations that serve New York as well as other states. This activity facilitates the Critical link of communication. TAPs share information about projects they are working on individually and collaboratively and have reported that the Forums are a conduit

for the communities they serve to access new or additional resources. Furthermore, there have been instances in which two or more TAPs were planning to be involved with a particular project and through the Forum learned of the roles other organizations were playing. This type of information can be vital to the planning process, especially when there is a range of expertise involved. The Forums promote camaraderie among TAPs and the communicative exchanges reduce the likelihood of duplicative efforts, thus maximizing resources available to other communities. Each Forum begins in the morning with each TAP briefly mentioning projects or issues s/he is working with, followed by a specific topic of discussion. Affordability, funding procedures, conflict management, and frequency of billing were among the topics at the 2003 Forums. During the lunch hour, the EFC invites a guest speaker who addresses another topic of interest and then engages TAPs in an interactive discussion. The afternoon hours are set aside for open discussions about a range of issues, concerns, or projects with ample opportunity for people to network and share information. Attendance has increased at each Forum and it is anticipated that the increased participation will continue throughout 2004.

Stakeholder Outreach and Education

In the Executive Summary, reference was made to the emergence of public outreach as a critical need in communities pursuing water and wastewater projects. In New York it is quite common for the EFC to receive calls from communities that have attempted several times in the past to develop a much-needed project only for the voters to reject it on the basis of cost. Although public outreach has long been a component of EFC activities, during 2003 the public outreach and education activities were recognized as an absolute link to the ability of a community to generate awareness among the public regarding the benefits (or needs) of the project. The EFC approaches each community as a distinct entity in which no one-size-fits-all model of outreach and education can be applied. EFC staff meet with community leaders to learn the historical elements of a prospective project as well as the current conditions prompting the planning for the project. Information concerning the extent to which groups have formed in favor or opposition to the project is obtained as well as all information concerning estimated costs.

In some communities the EFC will conduct a series of focus groups to elicit input from homogenous factions within the population and to get insight into any concerns that might exist, what information (accurate or inaccurate) people have received, and what the general perceptions are. This enables the EFC to create a sensible strategy for the public outreach and education process. Depending on the community, the EFC might create material for distribution in which information such as the cost of wells septic systems are effectively depicted using graphic and verbal methods. Other material might include information concerning the costs associated with getting water from source to tap. While there is a myriad of information available in which such facets of water are illustrated, it is usually very generic and communities can be unresponsive if it is not their community and therefore inaccurate. EFC

material is often created to be specific to the community and consequently enjoys an element of responsiveness from community members that generic material cannot provoke. For example, in one community the EFC distributed information about the average annual costs to receive water from a well in New York many were surprised to learn that they were opposing a water project that would actually cost less per year than the well they were using.

Another outreach tool is the Community Roundtable. The EFC uses public property or voter lists from the local government to randomly invite up to 50 people to attend. To date, all Roundtables attract more than the number of people who responded that they would attend. The EFC brings a light meal in the early evening and creates a panel of experts at the front of the room. The panels are typically comprised of at least one local government official, an engineer, and a representative from a government-sponsored funding agency. The meetings begin with all present introducing themselves and stating what motivated them to attend. The EFC Director provides a set of rules concerning the purpose of the meeting and giving assurance that all views are valid and worthy of discussion. She then leads the panel through a brief series of questions concerning the impetus for the project, the technical feasibility of the project, and the anticipated costs per household. The panel provides information on how financing takes place, the length of time it will take for the project to be built, and other issues the EFC believes appropriate. The audience is then engaged in a facilitated discussion in which they are provided the opportunity to express their concerns. The Roundtables have always resulted in positive and highly constructive discourse focused on the project. Public officials frequently glean insight they previously did not have and the public always gets information that is accurate and framed in terms they can understand.

During 2003 the EFC worked extensively with a total of 27 communities in this regard. The work was intensive and fruitful in that in all communities the public at the very least understood the reasoning behind the government's decision to consider or proceed with a particular project. In numerous instances, individuals who previously opposed a project began to support it. Of the 27, two of the projects are scheduled for financing in 2005. Fifteen belong in one county and are still in the early stages of determining the value of a municipal drinking water system. A group of seven communities is roughly one year away from being prepared enough to establish an inter-municipal agreement and apply for financing a regional system. One community is evenly divided between support and opposition to a municipal water system and aside from that, it is possible that the New York State Office of the Comptroller will not approve the project due to the debt involved. One community is under a consent order to build a new waste water treatment plant and while the public was not initially supportive, through the work of the EFC there appears to be an acceptance of the pending costs. Finally, one community is on the verge of applying for financing a wastewater system, particularly if it can become a beneficiary to a municipal water project underway in an abutting municipality. The EFC is committed to continuing its work in each of these communities. Additionally, there have been inquiry calls from approximately 30 other

communities for assistance this comprehensive in nature from officials considering water or wastewater projects to meet regulatory compliance or economic development needs.

Training

The role of the Syracuse EFC (EFC 2) in providing training is somewhat unique. As the PMFP was being developed, the EFC sought to ensure that its training provisions complemented the training provided by its partners. The 2002 Annual Report noted that in EPA Region 2 there is an abundance of valuable training programs available. The Association of Towns sponsors an annual training conference which includes a broad range of subject areas, and the Conference of Mayors offers an annual series of workshops dedicated to public works issues. Also, the Rural Water Association routinely offers training to water system operators. Those, and other organizations extend the opportunity to participate to virtually all elected and many appointed officials.

The sheer number of people invited force a format to be developed for groups of peers as opposed to individual learners. EFC 2 assessed the values imparted to local governments through those programs and determined that its strength in the training realm was its ability to provide customized training. In many respects, the EFC has greater flexibility and professional resources to create instructional formats for smaller groups and for individuals.

EFC 2 discontinued training events that were repetitive of what its partners provided and focused on providing training in a multitude of subject areas over a three to four day period. Additionally, EFC 2 developed customized training modules to meet the needs of a particular community and provided to small groups of individuals in need of training applicable to a specific community situation. This allowed for the EFC to fill the gaps that were believed to exist in the delivery of technical assistance and training among smaller communities. During 2003 EFC 2 referred individuals to appropriate organizations for general training opportunities and invited a total of 467 local government officials (elected and appointed) to its specialized training events. Furthermore, the EFC made itself available to provide content to the training held by its partner organizations as needed and appropriate.

The launching event for the PMFP took place in April 2001 at Syracuse University's Minnowbrook Conference Center, located in the Adirondacks. In 2002, there were two PMFP events held at Minnowbrook. During 2003 there were three separate training events. In 2004, four separate multiple-day training events are scheduled each year, as the services of EFC 2 become more familiar to communities, the number of training events scheduled increases.

The subjects addressed in the training include public finance, capital planning and budgeting, rate setting, asset management, environmental conflict management and resolution, project

financing procedures and regulations, and the introduction of new technologies. Each training event has short case studies and/or simulations integrated into the format to promote the ability of participants to gain a range of stakeholder perspectives on a range of issues. All training is highly interactive and allows ample time for participants to discuss issues of mutual concern, share experiences, and initiate inquiries to technical assistance providers. This type of training format enables peer-to-peer learning as participants get into groups to solve problems presented in the cases, their strengths in terms of skill sets come to the fore. Each group is comprised of an equal distribution of technical assistance providers and government officials, which supports the ability of individuals to explore all perspectives of a given situation.

All training events conclude with an evaluation of the PMFP concept in which participants are asked what they would benefit from in the future. There is always unanimous expression of gratitude for the opportunity to participate in a forum with such a variety of resources and all community representatives commend the EFC for the format. The training events have enticed community leaders to remain in contact with the EFC, many requesting specific assistance or seeking to be put in contact with technical assistance services. The EFC is very proud of the foundation it has established for the PMFP in terms of having a means for technical assistance providers and local governments to interact in a comprehensive manner, using a variety of methods to promote learning, networking, and the delivery of solid expertise relative to environmental improvements. The concept is a clear winner with respect to responding to community needs and providing assistance with flexibility suitable to a given situation. The PMFP will continue to use highly interactive and participatory methods of delivering all of its components.

Source Water Protection Project

Under the leadership of the University of New Mexico EFC and in cooperation with New York State's Department of Environmental Conservation, Department of Health, and EPA Region 2, the Syracuse EFC is working with a cluster of communities with common concerns for potential drinking water contamination. To achieve an outcome that combines both process facilitation and direct technical expertise, the EFC continued enjoying a collaborative relationship with the Water Resources Institute to carry out the activities of the project. It is scheduled to be completed by June 2004. EFC staff members have identified a private foundation interested in the Source Water Protection project and anticipate preparing a proposal to continue building upon the work performed under the subcontract with the New Mexico EFC.

The following activities were completed on behalf of the Source Water Protection Project during 2003:

- Began developing plans to build upon the successes of the project by contacting private foundations for support. To date, the project has attracted a foundation that has business interests in the county. The EFC anticipates that approximately \$5,000 will be provided for the purpose of conducting focus groups and community meetings to promote source water protection practices among homeowners. This work will set the stage for later work to promote actual testing of source water.
- Facilitation of meetings held by the Chenango County Water Operator's Council, a group of public and private water system operators and representatives from the County Health and Planning Departments, Soil and Water Conservation District and the local Environmental Education Center.
- Sponsored training sessions for water system operators in Chenango County; topics included source water protection, emergency planning and system security, and proper sampling techniques. Over 40 operators from public and private water systems attended.
- Hosted a public meeting for all system operators and elected officials in the County with the Susquehanna River Basin Commission, a federal agency responsible for monitoring water use in the Susquehanna watershed. This was followed by a Council meeting with Commission representatives to follow up on specific concerns.
- Published the first *Council Update*, the Council's quarterly newsletter distributed to all system operators and elected officials in the County. The first issue contained notes on the public Commission meeting.
- Completed or planned source water assessments to supplement the NYS DOH assessments to identify potential sources of contamination to drinking water.
- Held regular monthly Council meetings.
- Distributed meeting notes and agendas to all water system operators and other interested parties in the County (there are 63 system operators and 37 elected officials-congressmen, mayors, supervisors, state senators and assembly representatives).

The Source Water Protection Project is based on the notion that communities working proactively to protect their health and resources will prevent contamination of their drinking water sources. A proactive approach can help a community avoid serious health risks associated with drinking water contamination. It can also be an economical approach preventing contamination can be much less expensive than cleaning a contaminated source. The brochure the EFC developed in 2002 for distribution to water systems, customers,

community groups anyone interested in protecting their drinking water, continues to enjoy broad distribution and effectively provides basic information about source water protection. The EFC believes that the anticipated private foundation funding will be a tremendous asset to the continuation of this project not to mention the momentum within the County.

Rate Setting Assistance

During 2003 the EFC continued to work with communities attempting to create equitable user rates as they pursued water and wastewater system improvements. During 2002, the EFC developed a more customized system of delivering training and assistance to communities because workshops and instruction at training events did not appear as valuable to the actual learning process for many practitioners. What the EFC learned through evaluations was that the training events often resulted in information overload and municipal representatives derived greater benefit from more one-on-one methods of instruction. The EFC always does evaluations immediately after a training event and additional evaluations after time has passed in order to ascertain the extent to which individuals are applying whatever material was imparted during the training event. Immediately following the formal training events, most participants believe they received the information but after time passes, many were not using the information because they did not sufficiently retain it.

Providing individual assistance requires more time on the part of EFC staff, however, it results in the delivery of more comprehensive information to communities and ensures their ability to develop a stronger internal capacity to work with rate structures. In turn, this assures that the government's investment in the EFC will have the longer term impact it seeks. Over the past decade, the EFC has recognized that rate setting training delivered in the classroom to groups of practitioners does not have the same long term value, particularly when consideration is given to changes in political administrations responsible for rate setting decisions. Human nature inhibits many individuals in a group setting from asking specific questions relative to their circumstances, or otherwise fails to recognize differences in learning styles. By working with communities on an individual basis, the EFC is not only facilitating capacity-building within a community, it is complementing the broader training provided by other technical assistance providers, such as the Rural Water Association, which continues to deliver training using classroom methods.

During 2003 the EFC provided either comprehensive rate analyses or customized training to the Village and Town of Dunkirk, Town of Brocton, Village of Bergen, Town of Sheridan, and Town of Springville. There were nine other communities that contacted the EFC expressly about assistance with rate structures. The EFC anticipates working with several of those communities but cannot do so until specific data is made available.

EFC Collaborative Activities Summary

EFC Network

- The Public Management and Finance Program mentioned previously in its own section was the most significant collaborative activity during 2003, as it was in 2001 and 2002. EFCs located in Kentucky, North Carolina, New Mexico, Maine and Maryland were included in a proposal submitted to the USDA in December, 2003 to fund the water and wastewater work of the PMFP. The USDA experienced a significant reduction in program funds and committed only to renewing the current funding for the Syracuse University EFC. However, there are plans to seek alternate funding sources to enable the PMFP to begin at least some pilot activity in New Mexico and Kentucky.
- Through the leadership of the New Mexico EFC and in collaboration with four other EFCs, the EFC will continue to collaborate on the Source Water Project mentioned previously. The project has been extended through June, 2004.
- The North Carolina EFC provided an opportunity for the Syracuse University EFC to participate in a project in the Appalachian region. The EFC submitted a proposal to the North Carolina EFC in October to prepare environmental finance case studies relative to the region. The project received funding and is scheduled to begin in spring 2004.

Other

- Continued developing concepts and proposals with the Water Resource Institute of Cornell University to work with communities seeking environmental improvements. WRI has technical strengths and the EFC has financial and process-oriented services that, when combined, make a complementary team. During 2003 WRI and EFC discussed numerous prospective opportunities to consider for the future.
- Community Specialists of the Rural Community Assistance Program and EFC staff collaborated on several occasions in 2003 to provide comprehensive assistance to communities in need of drinking water systems. RCAP provided assistance in developing the applications for grants and loans while the EFC focused on methods to generate community support.
- The EFC and the New York State Environmental Facilities Corporation began collaborating to provide assistance to a community exploring the development of a new wastewater system. The EFC role will be dedicated to public education

concerning the costs of the system and issues surrounding the impetus for the government to plan it.

Initiatives for 2004

- Develop next stage to the Source Water Protection Project scheduled of which the EPA support will end in June. The EFC has established contact with a foundation and plans to prepare a proposal to support focus groups and community information meetings during the summer and fall of 2004. This work will pave the way for additional project activities and growth. Thus, the intent of the EPA to provide seed funds to enable a broader project will be achieved.
- Establish quarterly events for local government officials to learn new information. During 2003 local government officials approached the EFC about supporting and facilitating topic-dedicated meetings on a quarterly basis for them to keep abreast of issues primarily involving regulations and procedures related to infrastructure financing. Although the EFC was able to conduct one such meeting, current funding levels do not allow for these events to be prioritized. However, the EFC believes that it is important for it to respond to local government needs, particularly when leaders are motivated enough to approach others for assistance. To respond to the request, the EFC met with private sector firms and will be receiving funds to support the activity.
- Continue to develop the Public Management and Finance Program, particularly with respect to pilot testing the concept in at least two other states served by an EFC. To date, this will involve coalescing technical assistance providing organizations, identifying two communities, and sponsoring travel to New York for representatives of those communities to receive training at one of the EFC's three-day training events. This will, first, show the commitment to the collaborative element of the PMFP, and, second, it will enable the PMFP to elicit data on the needs of communities outside of New York and, thus, be able to develop proposals for funding accordingly.
- Support graduate student projects to research various environmental finance issues for communities and other nonprofit or government associations. In May 2004 a group of seven graduate students will undertake research to assess the extent to which inter-municipal agreements relative to waster and wastewater projects render the economic and social values purported to be true. Students will interview officials from municipalities involved in inter-municipal agreements to implement water projects, in addition to conducting an analysis of the quantitative data of project financing and services delivered.

Summary of Activities

January / March

- January 10 - presented information to representatives of the Villages of Dunkirk and Fredonia and the Towns of Sheridan, Dunkirk, Pomfret, and Brocton officials to discuss the prospective development of water authority, and the assistance available from the EFC and other nonprofit, government, and private organizations.
- January 24 - met with officials of the Town of Alexandria and the Village of Alexandria Bay to discuss future plans to hold a community meeting regarding the planning and development of a water and wastewater system.
- February 1 - presented information to corporations and community based organizations at Syracuse University's Annual Inside SU, designed to introduce prospective supporters to the accomplishments of programs housed at Syracuse University.
- February 6 - met with Professor Larry Schroeder and Ph.D. student Carla Priazza regarding the development of public finance-public participation curriculum for training local government officials.
- February 16-19 - presented information about the EFC Network at the New York State Association of Towns Annual Meeting in New York City.
- February 27 - facilitated the PMFP's Partnership Forum for technical assistance providers, the primary topic was affordability; 34 attended.
- February 27 - met with the Water Resource Institute about collaborative projects in the future, discussed current Source Water Project underway in Chenango County.
- March 4-5 - attended the Environmental Finance Advisory Board meeting in Washington DC, which preceded the EFC Directors meeting that took place on March 5-6.
- March 12 - met with representatives of the Town of Campbell to plan a Community Roundtable for the purpose of engaging the public in planning a municipal water system. The work was performed at the request of the Rural Community Assistance Program.

- March 14 - attended an announcement by Congressman John McHugh and the USDA regarding financing for a water and wastewater project in the Alexandria Bay area; was ask to speak to audience about processes that resulted in accomplishing the funding.
- Received one week of training in Process Communication Management in Bethesda, MD for the purpose of improving skills in managing group discussions focused on environmental improvements and to provide training to local government officials.
- Met with representatives of the USDA and New York Environmental Facilities Corporation to assess possibility of county-wide water authority in Western New York.

April / June

- April 3 - met with representatives of seven governments comprising Chadwick Bay Area Development Corporation to discuss strategy to pursue water district.
- April 17 - facilitated meeting for the Syracuse Lead Task Force which is interested in promoting awareness about lead contamination in children.
- April 22-24 - conducted training event at Syracuse University's Minnowbrook Conference Center for local government officials and technical assistance providers; announcement of renewed support from USDA for the EFC water and wastewater related work.
- Met with representatives of the Erie County Water Consortium to discuss possibility of have roundtable among 22 communities about prospective county wide water authority.
- May 7-8 - met with USDA representatives in Washington DC to present information about the work of the EFC and resources of the EFC Network.
- May 12-June 5 - supervised research project on values of public participation with environmental improvements conducted by eight Master of Public Administration students and presented to USDA Rural Utility Services.
- May 12-16 - facilitated implementation of student research project focused on procedural aspects involved in small community applications to fund water and wastewater infrastructure improvements; EFC staff presented cases on community

participation relative to cost recovery to course on environmental dispute resolution (EFC Director served as co-instructor of graduate course).

- May 20 - met with representatives of the Village of Hobart concerning prospective costs of environmental improvements and community building.
- Met with Village of Hoosick Falls to plan public outreach events necessary to educate public about wastewater consent order and costs to public.
- Met with City of Syracuse representatives about brownfields grant program, the history of the grant, and potential activities to pursue.
- May 28 - facilitated Community Roundtable in Town of Campbell; 64 residents attended.
- May 29 - facilitated PMFP Partnership Forum for technical assistance providers, new funding procedures primary topic, 38 in attendance.
- June 2 - attended meeting held by Susquehanna River Basin Coalition, presented information on EFC services.
- June 3 - facilitated meeting among business owners in Hoosick Falls concerning wastewater consent order and predicted estimated costs; gleaned input concerning methods to disseminate information to community at large; 18 attended.
- June 25 - facilitated meeting on behalf of Onondaga Lake Partnership for purpose of exploring the hiring of an Outreach Coordinator to manage the tasks and activities related to the clean-up of Onondaga Lake in Syracuse, New York.

July/September

- July 9 - facilitated meeting for the Syracuse Lead Task Force; attended by representatives from 17 separate agencies dedicated to environment, public health, and children.
- July 10 - met with Economic Development Director of Seneca County to introduce him to procedures to explore prospective funding for county wide water district; committed to work with County on public inputs and facilitation of dialogue among elected officials of municipalities in County.

- July 11 - met with representatives of Chadwick Bay Economic Development to plan series of public meetings and focus groups regarding creation of water authority.
- July 14 - facilitated subcommittee meeting of Onondaga Lake Partnership, which included representatives from EPA Region 2, Onondaga County, New York State Office of the Attorney General, and a nonprofit organization, for purpose of discussing attributes of potential Outreach Coordinator position.
- July 15-17 - conducted training event for local government officials and technical assistance providers at Syracuse University's Minnowbrook Conference Center.
- July 18 - presented information about the EFC and environmental organizations and agencies to Syracuse University graduate students interested in pursuing careers in environmental policy; 23 in attendance.
- July 21 - met with elected officials of the Town of Clayton, Hamlet of Depauville, to create strategy to elicit input from residence concerning the creation of a municipal water system.
- July 29 - facilitated meeting with Onondaga Lake Partnership to finalize decision to hire outreach coordinator.
- July 30 - met with stakeholders in Hoosick Falls to discuss wastewater consent order and elicit input regarding additional stakeholder groups to include in discussions.
- August 4-7 - attended Environmental Finance Advisory Board meeting in San Francisco.
- August 7 - met with managers of hazardous waste programs to present information about technology in use and available.
- August 18 - facilitated PMFP Partnership Forum for government officials and technical assistance providers; open discussion about infrastructure financing policies and impacts on small communities; 36 attended.
- August 25 - facilitated Chenango County Water Operators Council meeting as part of the Source Water Project activities.
- September 4 - facilitated final meeting of Onondaga Lake Partnership to reach consensus about whether to hire outreach coordinator.

- September 15-17 - conducted focus groups of business owners/representatives, residents, and local officials in the Chadwick Bay area to discuss creation of water authority and the perceptions stakeholders have of need and benefits.
- September 19 - met with SUNY ESF and Atlantic States Legal Foundation, a member of the Onondaga Lake Partnership, to discuss potential community based meeting on promoting recreational values of Onondaga Lake.
- September 23 - met with Seneca County elected officials to begin dialogue concerning creation of county wide water district.
- September 30 – October 3 - attended EFC Director's Meeting in Maine.

October/December

- October 14-16 - conducted training event for local government officials and technical assistance providers at the Antheneum Hotel of the Chautauqua Institute.
- October 21 - presented information about the EFC and PMFP to the Annual Conference of the New York Conference Of Mayors.
- October 22 - met with Seneca County representatives to discuss strategy for future discussions and educational outreach concerning county wide water district.
- October 25 - facilitated a community-based meeting concerning the recreational values of Onondaga Lake, attended by 22 individual business owners and sportsmen.
- November 7 and 14 - EFC staff received training in GIS mapping.
- November 11 - met with Onondaga Lake fisherman to provide input regarding methods to coalesce other sports representatives around the Onondaga Lake clean-up mission.
- November 13 - conducted Community Roundtable concerning creation of municipal water system in Depauville, New York, 56 attended.
- EFC staff received certification in Process Communication Management, a communication model valuable to environmental dispute resolution.

Accomplishments

Technical Assistance

Smart Growth in Maryland

Maryland's Eastern Shore is under significant development pressure as a result of population growth in the region. The Eastern Shore has become a popular place to live because of its proximity to major cities and their sprawling suburbs, recreational opportunities, low cost of living and low crime rate. Small municipalities on the Eastern Shore struggle to cope with the onslaught of growth with limited, or sometimes nonexistent, staff and financial resources and often outdated zoning ordinances. Many communities are looking for ways to turn this growth into sustainable community development.

The Assistant Coordinator met with representatives from Washington College, The University of Maryland Institute for Governmental Service (IGS), State agencies, local governments and nonprofit organizations to discuss how each organization could help local governments on the Eastern Shore. The discussion focused on matching the expertise of the group with the needs of local municipalities. The possibility of a collaborative effort among participants was also discussed. Next steps for this group were put on hold pending the outcome of a Kellogg Foundation grant application that had been submitted by Washington College to do a pilot project in the region.

In November, the EPA held a week-long Smart Growth training in Washington D.C. for Sea Grant Extension agents from around the country. The Director of Maryland's Sea Grant program sent the EFC's Assistant Coordinator and a representative from the University's Cooperative Extension program to the training. After the training the Maryland Sea Grant Director received a \$5,000 grant to implement some component of Smart Growth in Maryland. The EFC's Assistant Coordinator began discussions with representatives from Washington College and IGS to determine how to link the EPA grant money with the Kellogg Foundation grant to do a community visioning project for the Town of Galena on Maryland's Eastern Shore.

Solomons Harbor Septic Forum

The Assistant Coordinator is participating on a workgroup established by Calvert County, Maryland to look at innovative approaches to address the nitrogen entering Solomons Harbor from septic systems located in nearby residential areas. The workgroup is composed of representatives from the County, technical experts and local residents. The EFC will provide advice and expertise on innovative ways to finance the solutions produced by the workgroup.

The group held their first meeting during 2003 and will continue to meet periodically throughout 2004.

The Anacostia River

The Assistant Coordinator and the Director met with Tom Arrasmith—Chairman of the Anacostia Watershed Citizens Advisory Committee to discuss how the restoration and protection of the Anacostia could be made profitable for businesses. They also met with Andrew Fellows of Clean Water Action/Clean Water Fund to discuss the use of bonds to finance environmental restoration in the Anacostia River watershed.

The EFC's Training Manager completed the following technical assistance activities during 2003:

- Scheduled three classes for 2004 winter semester for Del-Tech: *Rate Setting, CIP and Asset Management*.
- Sent written comments on new security module of the National Environmental Training Center for Small Communities' (NETCSC) "*Managing a Small Drinking Water System*" program.
- Met with the Stony Creek Sanitary District manager and clerk in Woodstock, VA and provided rate setting tools and guidance to them for their rate study.
- Met with the mayor, council and town manager and clerk of Appomattox, VA for an evening training session on sound rate setting, financial management and local officials responsibilities for operating a drinking water system.
- Participated in a conference call with NETCSC Training Specialists Sandra Fallon and Mary Alice Dunn, along with fellow NETCSC associate Tommy Ricks of Mississippi RCAP regarding planning for the 2004 Training Institute.
- Researched possible funding sources for Franklin County, VA water quality monitoring efforts.

Rate Studies

The EFC Training Manager continued to work with communities in the region to conduct rate studies. The rate study for the City of Havre de Grace was completed during this year. The study for the Town of Federalsburg has been postponed pending the receipt of additional data from the town. She also conducted the following activities related to rate studies in the region:

organizations. A number of next steps were identified, including developing joint marketing strategies, list serves, and special events.

Approximately 20 people attended the follow-up meeting held in April 2003. The Assistant Coordinator gave a presentation on the concept of the financing "quilt" as it applies to funding land trust activities. She also presented the mock land trust map developed for the group on the EFC website and got input from the group on how it could be improved to better serve their needs.

Chesapeake Watershed Dialogues

The National Parks Service (NPS) Rivers, Trails and Conservation Assistance (RTCA) program, in partnership with the states of Maryland, Pennsylvania and Virginia, has initiated a collaborative effort to foster local watershed management in the Chesapeake Bay basin. The first stage of this effort will consist of a series of dialogues aimed to teach local governments, organizations and other stakeholder groups about watershed planning, and how these plans need to be incorporated into local land use decisions and other conservation practices. The dialogues will be held in the winter-spring of 2004. Three to five high priority watersheds from each state will be targeted for assistance from the RTCA program. After the dialogue, an RTCA staff member will be assigned to assist each watershed with the completion and implementation of their watershed plan. The EFC has committed to give a presentation on financing watershed plans at each of the dialogue meetings over the course of the next year.

Acid Mine Drainage

Acid mine drainage (AMD) from abandoned mines is a major source of water pollution in parts of Region 3. Remediation of AMD is difficult because funding is limited and there are often issues related to identifying responsible parties to pay for the clean up of abandoned mine sites.

The EFC has partnered with EPA Region 3 to hold a two-three day conference (exact date still to be determined) to help the States of Maryland, Pennsylvania and West Virginia determine how they might use State Revolving Loan funds, in conjunction with other innovative financing solutions, to address acid mine drainage remediation.

Chesapeake Bay Watershed Blue Ribbon Panel

The EFC Director began discussions with the Chesapeake Bay Program, to explore the potential for assisting a Blue Ribbon Panel commissioned by the Governors of Maryland, Virginia and Pennsylvania to explore financing options for reducing nutrient and sediment inputs to the Chesapeake Bay.

Training

The Training Manager conducted the following training sessions during 2003:

- Financial and General System Management for Small Systems– January 15– 8 hour class for Delaware Office of Drinking Water in Georgetown, DE.
- Two day forum for Maryland Rural Development Corporation (MRDC) on Small System issues– March 19 – 20, Cumberland, MD–EFC participation was presentation of two topics during each offering of the conference:
 - o 2 hours on Capital Improvements Planning
 - o 4 hours on Financial Management and Local Responsibilities for Small Systems.
- Four-hour session on Rate Setting and Cost Recovery for the staff of MRDC at their request March 24, Salisbury, MD.
- Capital Improvements Planning–April 16, Delaware Technical & Community College.
- Capital Improvements Planning – April 28, Maryland Rural Water Conference.
- Capital Improvements Planning – May 6, Southeast RCAP In-service Training.
- Rate Setting & Cost Recovery – May 7, Southeast RCAP In-service Training.
- Asset Management – May 28, Delaware Technical & Community College.
- Water Board & Support Staff Training – June 4, Delaware Technical & Community College.
- Capital Improvements Planning –June 4, Delaware Technical & Community College.
- Annual Training Institute – National Environmental Training Center for Small Communities (NETCSC) at West Virginia University– July 28-August 1, Provided 2 all-day presentations– “*Financial Management Basics for Small Utilities*” and “*Local Officials’ Responsibilities for Providing Safe Drinking Water*”.
- Attended conference on “Advanced Asset Management” – Sept. 8 – 10, in St. Louis, MO sponsored by EPA and St. Louis DNR Technical Assistance Unit (13 credited training hours).

- Capital Improvements Planning– October 9, Delaware Technical and Community College, Georgetown, DE.
- Capital Improvements Planning for MRDC – October 29, Frederick Community College, Frederick, MD.
- Asset Management – November 13, Delaware Technical and Community College, Georgetown, DE.
- Rate Setting and Cost Recovery for Virginia Rural Water –November 19, Buena Vista, VA.
- Rate Setting and Cost Recovery for Virginia Rural Water –November 20, Appomattox, VA.
- Rate Setting and Cost Recovery – December 4, Garrett County Sanitary District in Oakland, MD.

Communications and Outreach

Institute for Governmental Service (IGS)

The EFC Director and Assistant Coordinator met repeatedly with other programs to build a strong network of assistance for our clients. Especially fruitful is a new and strengthening partnership with the University of Maryland Institute for Governmental Service (IGS), which has considerable expertise in aiding small communities with their infrastructure challenges.

General Accounting Office (GAO) meeting regarding Asset Management efforts and programs, College Park

EFC staff met with GAO representatives in April to discuss projects being done throughout the region, as well as what needs to be done, to promote sound asset management programs and practices in community utility systems. After the meeting, the Training Manager followed up by sending abstracts for each of her current courses. She also relayed the names of two community systems in Region 3 that she viewed as doing a good job of asset management.

Maryland Center for Environmental Training (MCET)

EFC representatives met with the Director and Training Coordinator for MCET at the College of Southern Maryland in La Plata, and discussed ways that the two organizations could

complement each other, particularly in the area of Asset Management Training and Capital Improvements Planning efforts. As a follow-up, the Training Manager sent them a complimentary copy of the CAP Finance program and manual. MCET in turn furnished the EFC with several of its training manuals and videos for the EFC's reference library.

Southeast Rural Communities Assistance Program (RCAP) In-Service Training, Charleston, SC

Approximately 30-40 RCAP representatives from Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia and Florida attended the weeklong In-Service training event in May. The EFC Training Manager presented two half-day sessions on Capital Improvement Planning (CIP) and Rate Setting, and had the opportunity to meet a number of people from the Region 3 states who expressed an interest in doing cooperative training in the future. Four orders for a copy of the CAP Finance program from states outside Region 3 resulted directly from this meeting. The Training Manager reported a number of positive comments about the training presented as well as expressions of interest in future training events.

Delaware Training Coalition Training Conference, DTCC Georgetown Campus

The Delaware Training Coalition consists of the Delaware Environmental Training Center, Delaware Rural Water Association, the Delaware office of Southeast RCAP, Delaware Department of Public Health Office of Drinking Water and the Delaware Department of Natural Resources Wastewater Division. The conference was a one-day training course encompassing the basics every local official should know if responsible for the operation of a community water or sewer system. Presenters talked about liability, safety, regulatory, financial, planning and time management issues among other things. The EFC gave a 20-minute presentation on the services offered by the EFC in Region 3, and presented two additional training sessions. About 50 people attended the event and it was a good opportunity to meet Delaware system representatives and other trainers and regulators working in that state.

2003 National Environmental Training Center for Small Communities (NETCSC) Training Institute Planning

In addition to doing two all-day presentations for the 4th Annual NETCSC Training Institute, the EFC co-sponsored the event and was credited as such in all the publicity. The Training Manager presented an all-day class on Local Officials' Responsibilities for Operating a Drinking Water System and a second all-day session on the Basics of Financial Management

for small water and/or sewer systems. Bill Jarocki from the Region 10 EFC presented the follow-up to Basics of Financial Management with an all day session on how to use financial reports to aid in the decision making process.

The World Wide Web

The Maryland Environmental Finance Center has begun a major focus to improve the way it communicates with communities in the region. One of the strengths of the Center over the years has been its ability to communicate often-complex environmental and financial issues to leaders and citizens from all backgrounds. Our goal is to continue to build on this strength by leveraging World Wide Web (WWW) technologies to inform and educate environmental leaders.

During the year, the EFC continued to refine and improve its restructured WWW site. The site is the first step in developing what will be a portal for environmental finance information and issues. The site will also be a training tool for community and municipal leaders in the region.

During 2003, the EFC Director conducted the following outreach activities:

- Met with the University of Maryland Coastal Communities Specialist to discuss possible collaboration between the EFC and the Sea Grant Extension Program to address coastal community issues.
- Participated in a daylong rural community workshop in Vienna, Maryland held to discuss approaches to revitalizing small Eastern Shore communities. This workshop was sponsored by Washington College, and is part of a larger initiative to build capacity for municipalities on the Eastern Shore. Washington College plans to partner with the EFC and other groups to continue this effort in the future.
- Met with a participant in the Bay Ridge, Maryland land preservation effort, to see to what degree this could serve as a model for other communities.

The EFC Training Manager completed the following outreach activities:

- Morgantown WV- NETCSC Institute- EFC display in the Exhibit Hall at a training event attended by people from around the country.
- St. Louis, MO- Asset Management Conference- The EFC Training Manager was able to make numerous contacts with people in the industry about ongoing and possible future training efforts- including Don Niehus, the SRF Team Leader for EPA Region 3,

Duncan Rose lead facilitator for the conference from Parsons Asset Management Center and Steve Allbee, Director of EPA's Gap Analysis Project.

- Discussion with Don Niehus of EPA Region 3 Office regarding efforts to promote Asset Management techniques and sound management practices. Don later sent a letter regarding the class he attended at Del-Tech and indicated he would welcome suggestions for EPA involvement in fostering asset management practices in the region.
- Discussion with Gordon Outlaw of Maryland Department of Housing and Community Development regarding how department might use the EFC training on CIP and rate setting to help communities.
- Attended a MDE Capacity Development Advisory Committee Training group meeting to discuss cooperative means of training with Maryland Rural Water, MRDC and MDE along with training needs and schedules for 2004.
- Set up a meeting with Steve McHenry of the Rural Maryland Council (formerly FORVM-Forum for Rural Maryland) to discuss cooperative efforts outlined in the Syracuse EFC (EFC 2) proposal for training and assistance coordination; also enlisted support for the proposal from Pennsylvania SPWSTAC Director Dr. Charles Cole (Small Public Water System Technical Assistance Center (PennState-Harrisburg)).
- Scheduled training sessions for Maryland Rural Water Association as well as conference session for 2004.
- Scheduled one training session for Virginia RCAP on Asset Management for 2004.
- Scheduled one "personalized" training session for the Town of Blades, DE at the request of the Delaware Office of Drinking Water; session to focus on general finance and management issues as needs identified by the Delaware SRF program; it is hoped that this session will lead to additional such sessions and being viewed as an on-going resource for the Delaware Office of Drinking Water.
- Met with Frostburg Mayor and Council regarding Rate Study completion and results.
- Met with Southeast RCAP representatives in Georgetown, DE to discuss training opportunities.
- Held on-going discussions with NETCSC about the 2003 Training Institute and EFC participation and also held discussions with Delaware Environmental Training Center at Delaware Technical and Community College (DTCC) about scheduling training.

Environmental Finance Center Network

Source Water Protection Initiative

During 2003, the Maryland EFC expanded its work with the Unified Source Water Protection Project. The Project is charged with assisting communities throughout the country in their efforts to protect drinking water sources. The University of Maryland EFC is working to better incorporate such protection efforts into larger watershed protection efforts.

Frederick County, Maryland

The task force continued the plan writing process during the reporting period. An outline of the final plan was developed and task force members began writing assigned pieces of the final document. The Assistant Coordinator convened monthly meetings of the group through December. She spent extensive time working with the group to define the threats to the watershed from agriculture, as well as those from homeowners and new development. She also began writing and editing the final document with feedback from the group.

Upper Lake Linganore has been awarded a Watershed Restoration Action Strategy (WRAS) grant from the Maryland Department of Natural Resources. The WRAS grant will provide the County with additional financial and technical resources to go towards the protection of the watershed. Areas of overlap between the two projects were investigated by the task force in order to economize efforts. The WRAS Coordinator hired by County also became a regular member of the task force.

Berkeley County, West Virginia

During 2003, Phase II of the project wrapped up for this group. Subcommittees (Septic and Sewer, Industry, Transportation, and HAZMAT, Development, Growth, and Storm Water Management, Resources, and Agriculture and Wildlife) met monthly, and attendance was exceptional. Some of the subcommittees met more frequently, or extended the length of their meetings, in order to complete their portion of the report by the end of June. The group held its last full task force meeting on June 26th. At this meeting the Assistant Coordinator gave a presentation on the status of the source water projects around the country and how the Berkeley project fit into the larger picture. Joseph Hankins of the Freshwater Institute reported on his presentation of the Berkeley project at the EPA Source Water Protection Conference held in Washington, D.C. earlier in the month. Each subcommittee reported out on progress they had made identifying the most pressing issues in each category and steps that have been taken to address each issue. They also discussed solutions to each issue that they identified, as well as potential obstacles to those solutions. About 40 people attended the meeting

including local elected officials and members of the press. It was decided that committees would meet periodically over the next several months in order to complete the report. Additionally, the committee chairs and other members of the group offered to serve on an implementation committee to try to implement some of the recommendations made in the final report. The report will be complete in early spring 2004 and will be presented to the County Commissioners.

Since it was uncertain if the group was going to receive the \$25,000 EPA award it had been granted, the EFC put forward funds to hire one of the most active task force members as a coordinator for this project. The EPA award funds eventually came through and the group plans to use them for a part of a demonstration project and/or an educational program. They are applying for a 319 grant from the EPA to do a demonstration project for a centralized or cluster septic system remediation project and they have been meeting to develop a concept and chose a site. The Assistant Coordinator has been attending monthly meetings as part of the EFC's ongoing commitment to the group. At the close of 2003, efforts to develop a demonstration project were still underway.

2003 National Source Water Protection Conference-Washington, D.C.

The EFC's Senior Advisor gave a presentation of the financing "quilt" concept at the Plenary Session of the EPA's 2003 National Source Water Protection Conference in June. The Director and the Assistant Coordinator, in collaboration with staff from the EFCs in Regions 2, 6 and 10, also conducted an environmental finance training session using case studies during the Technical Training/Short Courses section of the conference.

Drinking Water and Waste Water Needs Assessment for Appalachia

The Maryland EFC (Region 3) has partnered with the EFCs at the University of North Carolina and Syracuse University on an Appalachian Region proposal that has been awarded funding. This project is part of a contract with the Appalachian Regional Commission to examine water and sewer infrastructure needs and gaps in Appalachia. Work on this project will begin in 2004.

Other Network activities completed during the year include:

- The Director gave a presentation on Smart Growth and financing at the American Planning Association meeting in Denver, Colorado, as part of a panel featuring the EFC Network.
- The EFC Director and Assistant Coordinator participated in an EFC Network briefing for the Comptroller of EPA and senior staff. This meeting led to a separate meeting at the

EFCs College Park office with the Senior Advisor to the EPA Comptroller to discuss the roles and potentials of the EFCs and the Environmental Financial Advisory Board (EFAB) in addressing key and emerging environmental finance issues.

- EFAB meeting in San Francisco, CA (Aug 4-5) – The EFC Director reported on efforts to explore environmental finance on a watershed basis (working with the EFAB subcommittee on watershed financing).
- The EFC Director attended the annual meeting of EFC Directors in Maine in October, in order to plan collaborative efforts with other EFCs. One potential arising from this collaboration is a Public Management and Finance Program (PMFP), an initiative with the Syracuse University EFC and possibly several others.
- The Director also participated in a network-wide conference call with the EFCN to determine future strategies for the Network.



UNC

ENVIRONMENTAL FINANCE CENTER

2003 Annual Report of the Environmental Finance Center Network

Region 4 - The University of North Carolina at Chapel Hill

The University of North Carolina was established in 1998 and is one of two EFCs in Region 4. The EFC serves the states of Kentucky, Tennessee, Mississippi, Alabama, Florida, Georgia, South Carolina, and North Carolina.

Introduction

The Environmental Finance Center at the University of North Carolina at Chapel Hill (UNC EFC) works with local communities and government agencies throughout EPA's region 4 to address environmental management challenges by developing innovative financial management and environmental policy strategies and systems.

The UNC EFC assists communities by *"providing a bridge between students and faculty in the university who work principally on environmental financing, management and planning tools, and the governments and businesses whose job it is to use those tools for the public interest."*

The UNC Environmental Finance Center is one of a group of university-based centers that concentrate on problems in the financing of environmental services. The U.S. Environmental Protection Agency originally established the centers in order to bring the work of researchers in the universities directly to bear on local environmental problems. The UNC EFC was begun in 1998 as a joint venture between the Institute of Government and the Office of Economic Development, both at UNC-Chapel Hill. Faculty and students working with the UNC EFC concentrate on helping improve the financing and delivery of environmental goods and services by local governments.

The UNC EFC receives its core support from the United States Environmental Protection Agency and the University of North Carolina at Chapel Hill.

Accomplishments

Training

The UNC EFC primarily reaches local communities through the delivery of interactive applied training programs and technical assistance. The UNC EFC sees one of its major roles as increasing the capacity of other organizations to address the financial aspects of environmental protection. For this reason and to support the leveraging of resources, the UNC EFC does most of its training in a collaborative manner – partnering with established organizations that have environmental, but not necessarily financial expertise.

Major training activities carried out in 2003 are listed below:

Management of On-site Wastewater Treatment Systems. As much as 50% of North Carolina's population depends on these systems, yet the state has few institutional arrangements to enable local governments to manage and finance these systems. The UNC EFC facilitated a training session as part of a NCRCAP training program. The session examined the different interests and concerns of stakeholders and strategies for addressing these concerns.

Water and Wastewater Capital Finance Course. The UNC EFC worked with the UNC Institute of Government (the largest local government training program in

North Carolina) to develop and co-sponsor a comprehensive 2-day course on capital finance for local government utility, management, and finance officials. The course has become a regular offering of the Institute of Government, and attracts one of the most diverse groups of participants at the Institute, with equal representation of professionals from technical and financial fields. The course focuses equal attention on sources of capital finance and planning techniques.

Water and Wastewater Leadership Center. The UNC EFC was asked to develop and deliver a Utility Finance Module as part of a national water and wastewater leadership program run by the Kenan Flagler Business School on behalf of several national water and wastewater organizations including AWWA, AMSA, and AMWA. The module was designed to provide senior technical leaders with an overview of financial management topics and to encourage them to become more involved in the financial aspects of their operations.

Water and Wastewater Rate Setting. The North Carolina Section of the American Water Works Association and the Water Environment Association sponsor over a hundred training programs a year for water and wastewater utility professionals – almost all of these programs focus entirely on the technical or regulatory aspects of service provision. The UNC EFC worked with the association to expand its offerings related to finance and management topics. The UNC EFC assisted the association with designing and implementing a 1 day seminar on rate setting and revenues that now complements the organization's more technical programs.

Financial Management Seminars for Utility Managers. The Florida Section of the AWWA similarly focuses on the more technical aspects of utility provision. The UNC EFC collaborated with the Florida Section in 2003 to offer several financial management seminars during statewide meetings and events.

Solid Waste Revenue Workshop. Over the last few years, the number of inquiries for financial planning assistance from solid waste programs has increased substantially. Solid waste finance issues include transitioning from tax supported programs to user fee supported programs; loss of tipping fee revenue as communities close landfills; and flow control issues. In order to help communities address these issues, the UNC EFC worked with several local governments to host an intensive one-day workshop for solid waste managers and attorneys from across North Carolina.

EPA Financial Capacity Workshop. The UNC EFC was asked by EPA to deliver a session on financial management to a group of technical assistance providers from Regions 4 and 6 at a capacity development workshop in Atlanta. The event provided

an excellent forum for the Technical Assistance (TA) providers (including the UNC EFC) to share their recent experiences and to exchange assistance strategies.

Community Development Academy. The UNC EFC was asked to deliver a presentation on water management financial issues to a group of community development professionals as part of the 2003 Community Development Academy. The Academy is held each year to educate local government planners and community organizations.

Municipal Enterprise Budgeting. Every year, the UNC School of Government provides a variety of financial management and accounting trainings to hundreds of local government finance and budgeting professionals. The UNC EFC has been asked to help integrate environmental management concepts into these courses. The UNC EFC developed a presentation on using municipal budgets effectively to encourage and monitor environmental management.

Direct Technical Assistance

The UNC EFC devoted a significant amount of resources in 2003 to providing direct support to practitioners throughout the Southeast. This technical assistance included email and phone consultations; management of listservs; site visits; and the publication of guides and updates on key issues. The table below shows a few examples of technical assistance activities carried out in 2003.

Community	Description
Town of Jacksonville	Advice on purchase of potentially contaminated property
Town of Yanceyville	Advice on issues in inter-jurisdictional water resources planning
Towns of Huntersville and Cornelius	Advice on municipal power to regulate activities on lake within towns and on rulemaking authority of Lake Norman Marine Commission
Orange County Solid Waste Department	Provide assistance evaluating revenue options to support community recycling program. Development of cost accounting, equipment reserve and cash flow models.

Polk County	Assistance on legal and financial implications of different solid waste financing options.
Orange County	Support effort to develop a state of the environment report.
Rutherford County	Comprehensive assistance with community source water protection. Facilitation of community meetings, support in risk assessment.
Harnett County	Assistance in considering utility merger options and opportunities.

Policy Analysis and Support

In addition to direct community outreach, the UNC EFC works with decision makers to assess the effectiveness of environmental finance policies at a regional or state level, and to improve those policies as a way of supporting local efforts.

Major policy efforts in 2003 included:

Assessing Drinking Water and Wastewater Infrastructure Funding in Appalachia. The UNC EFC was awarded a competitive contract to carry out a drinking water and sewer infrastructure needs assessment for the Appalachian Regional Commission (ARC). The project began in the fall of 2003 and will continue through 2004. The project includes developing quantitative estimates of water and sewer needs in the 13 state/410 County ARC region; preparing a detailed and quantitative catalog of public financial water and sewer assistance in the region; identifying and analyzing financial management and infrastructure financing strategies within the region, especially strategies likely to have an impact in distressed communities; and developing financial management case studies. The project will look at strategies implemented at the local level as well as statewide strategies implemented by funding agencies and state/regional agencies.

Assessment of Land Conservation Easement Options. The UNC EFC presented information on the costs and financing strategies for land conservation to the General Assembly's Environmental Review Commission. The UNC EFC drafted legislation (ultimately passed) that allows a landowner with conservation easements to maintain important tax advantages on their land by keeping the land in the present use value tax program despite its conservation status. In response to a request from the Clean

Water Management Trust Fund, the UNC EFC constructed a cash-flow model that explains the choice a landowner/farmer faces between a permanent easement and a 30-year contract under the state's conservation reserve enhancement program. All of these activities flowed out of earlier work on conservation, the Million Acres Initiative, and follow-up work on the One N.C. Naturally effort by the state Department of Environment and Natural Resources.

Collaborative Strategies for Land Trust Networks. The UNC EFC conducted a survey of funding organizations that have faced problems in joint fundraising with affiliated organizations. A report and options presentation was provided for North Carolina land trusts, who are under pressure from their major foundation funder to develop a joint fundraising strategy among the 23 separate land trusts.

Strategies for Developing State Land Conservation Program. Following the success of the Million Acres report, the UNC EFC continued to play a role in expanding and developing financing systems for land conservation efforts in North Carolina. For the Secretary of DENR, the UNC EFC facilitated a series of six planning workshops attended by approximately 400 participants (in Chapel Hill, Greensboro, Charlotte, Boone, Fayetteville and Wilmington) from a broad spectrum of organizations representing different land-use, economic development and environmental interests. The workshop series was the kick-off of a new initiative to prioritize and coordinate land acquisition and protection activities across North Carolina.

Analysis of Fiscal Capacity of Water and Wastewater Utilities. The financial health of a utility has a major impact on its ability to provide safe drinking water and environmentally sound wastewater treatment. The financial challenges facing the water industry as a whole have been well documented over the last few years with the release of a number of high profile "financial gap studies" by EPA and the Water Infrastructure Network. Data relating to the financial capacity of North Carolina Water and Sewer was collected from a variety of different sources including the Local Government Commission, Local Water Supply Plans, the US Census, and individual utilities. A database of financial capacity information was developed and analyzed to identify financial trends and potential issues likely to impact the future provision of safe water in the state. Financial indicators relating to utility revenues, the percentage of income devoted to water services, debt, and operating efficiency were calculated and compared across different groups of utilities organized by type of utility, size, services provided, and geographic region.

Administrative Obstacles to Establishing Energy Assistance Loans. The UNC EFC was contacted by officials from a bank that is interested in developing a

revolving loan program for local government energy conservation and efficiency initiatives. The loan program has reached a road block due to several key issues related to how the loans are secured and administered. The UNC EFC provided general assistance and research on potential methods of structuring the loan program that would take into consideration current legal and financial constraints.

Inventory and Assessment of DWSRF Loan Programs for Disadvantaged Communities. Individual states are given the authority to create programs that target "disadvantaged communities" as part of their Drinking Water State Revolving Fund (DWSRF). Several states in Region 4 have already established these programs and other states such as North Carolina have considered them. The states have a wide latitude in how to run the program and states have chosen to define disadvantaged communities differently and have put together different financial assistance structures. The UNC EFC prepared an inventory of these programs and their characteristics in Region 4. The inventory is designed to help states that do not have the programs evaluate potential options, and to provide states with the programs more knowledge about other possible types of programs.

Options for Addressing Agricultural Waste Disposal Challenges. The UNC EFC has agreed to join the advisory panel for review of alternative swine waste management systems under the Smithfield Foods-Premium Standard Farms Agreement with the N.C. Attorney General. A primary outcome of this effort is judging economic feasibility of various alternative waste technologies.

Proposals/Initiatives for 2004

Some activities currently planned for 2004 include:

Dissemination of Results of Appalachia Drinking Water and Wastewater Needs Assessment. The UNC EFC will present the findings from the ARC Study to practitioners at all levels of government. The UNC EFC anticipates holding roundtables and presentations in states throughout Region 4 to discuss how the results of the study can be used to improve infrastructure funding programs.

Financial Management Guide and Board Training. The UNC EFC has been awarded funding from the Southeast Regional Small Public Water Systems Technical Assistance Center (SETAC) to provide financial planning assistance to small water utilities. As part of this project, the UNC EFC will write a detailed water utility financial management guide that targets the individuals that sit on governing boards responsible for drinking water service. The guide will focus on the legal and financial obligations and expectations assigned to these boards under U.S. and North

Carolina law (many financial management and rate setting responsibilities are based on state law). The guide will serve as the basis for a statewide board training program.

Statewide Training Program for Municipal Officials. The UNC EFC will participate in a statewide training program sponsored by the NC League of Municipalities and the UNC School of Government to provide basic governance training to elected officials throughout the state. The UNC EFC is responsible for designing and delivering environmental finance sessions that will be delivered to over 700 local officials at 8 locations throughout the state.

Storm Water Ordinance. Subject to funding from the section 319 program, the UNC EFC will assist in development of a statewide model stormwater ordinance (for Phase II post-construction stormwater control and other purposes).

Models for Funding On-site Wastewater Systems. The UNC EFC will prepare an inventory of different local approaches used throughout North Carolina to fund the repair and replacement of failing septic systems.

EFC Network (EFCN) Collaborations

EFAB Affordability Work Group. The UNC EFC serves on the Environmental Finance Advisory Board's (EFAB) Affordability Work Group. The UNCEFC works with EFAB members and several other EFCs to provide advice and guidance on water affordability programs to local utilities and state and federal regulatory agencies.

EFAB Joint-Operations Work Group. The UNC EFC also serves on an EFAB group charged with investigating potential options for jointly managing and operating state administered revolving loan programs.

Funding Database. One of the roles of the UNC EFC and EFCN is to capture, distill and disseminate useful finance and policy resources to practitioners. As part of this effort, many EFCs have developed internet resource databases that allow users with specific interests to find information on different types of funding and technical assistance. During 2003, the UNC EFC worked with the Boise State EFC to replicate an internet based funding database. The UNC EFC modified a series of computer applications developed by Boise State so that it can be used by the UNC EFC to present information on environment funding sources in the southeast.

Source Water Protection. The UNC EFC was one of five EFCs that have provided community assistance in eight states as part of an EPA supported project to field test innovative strategies for identifying and addressing risks to drinking water sources. As part of this effort, the EFCs have compiled a "lessons learned" document to share with EPA and others working in this important area. As a result of the project, local communities have started implementing specific water protection measures, and key state and federal oversight bodies have reviewed and fine-tuned their coordination efforts. The Rutherford County effort spearheaded by UNC EFC was the first of the nine national pilot projects funded by EPA to produce and pass a multi-jurisdictional source water protection plan.

Collaboration with University of Southern Maine EFC. The Network's newest EFC, the Maine EFC, has decided to expand the work they do in the area of water and wastewater financial management. The UNC EFC worked with the Maine EFC throughout the year to provide assistance and advice to help support their work. As part of the partnership, one of Maine's EFC research associates completed a UNC EFC distance education course.

Presentations, Conferences and Meetings

In addition to the events mentioned above, the UNC EFC actively participated in a number of presentation and conferences throughout the year.

- Council of Infrastructure Funding Authorities Annual Conference
- American Water Works Association Annual Conference
- Environmental Finance Center Network/Environmental Advisory Board Meetings
- North Carolina Water Resources Research Institute Annual Workshop
- Environmental law for newly elected legislators. Presentation to newly elected State Legislators.
- Workshop on water rights sponsored by ZSR Foundation
- Municipal and county administration. Environmental presentation to group of municipal and county administrators.

redevelopment, with smart growth planning for area development agencies, with the Environmental Justice Demonstration Project in Spartanburg, South Carolina. The focus was on financial planning and prioritization to maximize private investment potential and reduce need for public funds and donations; and with Region 4 RCRA specialists on ways of providing greater certainty over firms' financial capacity to remediate after completing ongoing operations. These expanded applications of our contaminated land expertise are reflected in our new Working Papers, other staff publications, conference presentations, and conduct of related research and technical assistance projects.

Accomplishments

Practice Guides

The Louisville EFC's Practice Guide series is focused on aspects of land use planning and information system development for promotion of urban infill, brownfield redevelopment and other aspects of smarter urban growth. The series development is ongoing, and is specifically structured to take advantage of research efforts conducted under other auspices by Center personnel. (Authorships below identify Center Staff in **bold** and Center Associates in ***bold italics***; note that Dr. Coffin was on staff the first half of 2003 and an associate after that.)

Practice Guides Completed in 2003 and Available On-Line

- *Utilizing Environmental Insurance for Brownfield Redevelopment* (**S.S. Hollis**, **T. Lambert** and **P.B. Meyer**)
- *Dealing with Growth: Alternatives to Large Lot Zoning on the Urban Fringe* (**H.W. VanLandingham**, **S.S. Hollis** and **R.M. Caravona**)

Practice Guides Developed in 2003 now in Preparation for On-Line Posting

- *"Greyfields" – The New Horizons for Infill and Higher Density Regeneration* (**K.M. Chilton**)
- *Low Population Density and Emergency Response: Accepting Delays or Higher Service Costs* (**T. Lambert**, **P.B. Meyer**, and **G. Higgs**)

Practice Guides Initiated in 2003 and Awaiting Completion

- *Financing Local Public Infrastructure: Determining an Effective Revenue Stream that Supports Local Projects (S. Coffin)*
- *Developing New Uses for Low-to-no-Market Brownfields: The Affordable Housing Solution (S. Coffin)*
- *C&D Debris Recycling for Environmental Protection and Economic Development (N.G. Leigh and L. Patterson)*

Technical Assistance

The Center has also provided direct technical assistance services to clients in Region 4 and elsewhere, and contributed to training and technical assistance provision through a range of other publications and presentations. These dissemination products have drawn on information collection undertaken under the EFC funding, but, in most instances, also have drawn from or built on data gathered and research conducted by Center Staff and Associates. Publications span professional journals, trade press and academic outlets, since all influence policy discussions and can contribute to more effective and cost-efficient environmental finance practice.

While some formally funded activities are listed below, the range of study undertaken that has contributed to the Center's productivity includes extensive efforts funded internally as part of university commitments of faculty time to the conduct of research. The apparent leverage of the EFC funding, therefore, acutely understates its real stimulus on related activity if only the externally supported work is included.

- Coffin, S.L.** Provided background information on the identification of brownfields in Jefferson County, Kentucky to the Kentuckiana Planning and Development Agency, a regional planning agency focusing on planning and development in the Louisville metropolitan region, January-May.
- Coffin, S.L.** Provided policy background on the relationship between brownfields and housing for the Lexington Habitat For Humanity, March.
- Meyer, P.B.** Delivered a presentation on how environmental insurance could contribute to financial assurance in a Region 4 RCRA Directors Conference, Lexington, KY, April.

- Meyer, P.B.** Participated in the Minnowbrook, NY, Rural Development workshops as part of the Public Management and Finance Program operated by the Syracuse (Region 2) EFC in May.
- Meyer, P.B.** Provided briefings on public sector utilization of environmental insurance both to protect government fiscal budgets and to encourage private sector investment on previously contaminated sites at OSWER/Office of Brownfield Cleanup and Redevelopment Workshops on Environmental Insurance for Regulators, for Regions 3 and 4, in Washington, DC, March, and Atlanta, GA, May.
- Lambert, T.** Presented findings on new developments in environmental insurance at the Great Lakes Economic Development Conference in Cleveland, October.
- Lambert, T.** Contributed a session on the limitations of enterprise zones and the local fiscal problems they can cause to the Syracuse University EFC's "Public Management and Finance Program" workshop in Chatauqua, NY, October.
- Meyer, P.B.** Organized two sessions, and presented workshops on environmental insurance to manage long term liability risks on sites with Risk-Based Corrective Actions and on problems facing local governments attempting to acquire environmental insurance for brownfield sites, OSWER/Office of Brownfield Cleanup and Redevelopment *Brownfields 2003*, Portland, OR, October.
- Meyer, P.B.** Organized, chaired and presented in workshop on managing risks over the long term for previously contaminated sites, *Business of Brownfields-2003*, Pittsburgh, PA, November.
- Meyer, P.B.** Consulted on planning for and organizing, then presented and led a workshop on prioritizing projects and strategically thinking about financing issues for the top priority Region 4 Environment Justice project, Regensis Planning/Prioritizing Program, Spartanburg, SC, December. (This involvement will also provide access to an area development project site for study as part of our new 5-year Cooperative Agreement with OSWER/.)
- Meyer, P.B.** Participated in two-day peer consultancy in Louisville (supporting visitors from the international Economic Development Council) on the options for redeveloping a Rhodia chemical plant site (after having assisted the city in applying for the grant that is funding current efforts), Louisville, KY,

December. (This involvement also may provide an area development project site for study as part of our new 5-year Cooperative Agreement.)

Publications Released

Coffin, S.L. Closing the Brownfield Information Gap: Some Practical Methods for Identifying Brownfields. *Environmental Practice*. V(1): 34-39.

Meyer, P.B. Brownfields and Red Ink: The Costs of Contaminated (and Idle) Land. *Environmental Practice*. V(1): 40-47.

Coffin, S.L. (under review) Establishing the Brownfields-Housing Connection: Modeling the Effects of Brownfields on Section 8 Households in Cleveland, Ohio. *Housing Policy Debate*.

Leigh, N.G., and S.L. Coffin

(under review) Modeling the Brownfield Relationship to Property Values and Community Revitalization. *Housing Policy Debate*.

Yount, K.R., and P.B. Meyer.

Models of Government-Led Brownfield Insurance Programs. Available at: <http://www.epa.gov/swerosps/bf/pdf/nku2002.pdf>

Yount, K.R. What Are brownfields? Finding a Conceptual Definition. *Environmental Practice*. V(1): 25-33.

Wernstedt, K., P.B. Meyer, and K.R. Yount .

Insuring Redevelopment at Contaminated urban Properties. *Public Works Management & Policy* 8(2): 85-98.

Meyer, P.B. Brownfields and Red Ink: The Costs of Contaminated (and Idle) Land. *Environmental Practice*. V(3): 40-47.

Meyer, P.B., and K.R. Yount.

Financing Redevelopment of Brownfields. Pp. 233-249 in S.B. White, R.D. Bingham and E.W. Hill (Eds.) *Financing Economic Development in the 21st Century*. Armonk, NY: M.E. Sharpe.

Externally-Funded Research Projects Involving EFC Personnel

The EFC at Louisville is imbedded in the University's Center for Environmental Policy and Management (CEPM). Many of the EFC personnel also work part-time on other research projects in CEPM, tying their technical assistance and training functions in the EFC to research and related projects supported with other funds. These projects include:

Urban Regeneration through Environmental Remediation: Valuing Market-Based Incentives for Brownfields Development. Continued work on this two year study for EPA/National Center for Environmental Research with Resources for the Future and the University of Maryland, initiated May 1, 2002. This study looks explicitly at what public incentives are most likely to attract developers to undertake projects on brownfield sites, providing data for more cost-effective redevelopment subsidy practices by both state and local governments. The Urban Land Institute provided us with a culled subset of the mailing list, identifying developers for the survey we administered in late 2003.

Expediting the Environmental Insurance Purchasing Process. Continued work on a two year study for EPA/OSWER/Office of Brownfield Cleanup and Redevelopment with Northern Kentucky University (NKU), initiated October 1, 2002. This study involves following three local governments (one each in Regions 4, 5, and 6), as they attempt to learn about, and work their way through, the complexities of acquiring environmental insurance in conjunction with pursuing their redevelopment efforts involving contaminated land; the cases will then be used to provide guidance on how to expedite the process.

Accelerating Brownfields Cleanup and Redevelopment with Innovative Uses of Environmental Insurance. New five year program of research and technical assistance for EPA/OSWER/Office of Brownfield Cleanup and Redevelopment with Northern Kentucky University, initiated October 1, 2003. This project involves updating information on available insurance products applicable to redevelopment of contaminated sites, monitoring state efforts to ease access to environmental insurance, investigating the potential for pooling certain types of small brownfield sites such as old gas stations to provide access to insurance, promoting an area-based approach in revitalization efforts, and otherwise promoting infill through new risk management approaches that ease access to capital.

New Initiatives Launched

New initiatives launched by the Louisville EFC in 2003 represent efforts to build on the foundation already laid. As noted above, complementary research efforts were undertaken during the year. Those efforts should contribute to technical assistance and training products in 2004 and beyond. Work on new Practice Guides, intended for release by Fall, 2004, was initiated. Center personnel also prepared other publications, both in print and on-line.

International Conference on Local Sustainable Development Efforts

Planning for the 6th International Symposium of the International Urban Planning and the Environment Association (IUPEA) was initiated by the EFC in 2003. The Symposium will be held in Louisville, September, 4-8, 2004, with the overall theme of *Global Pressures on Local Autonomy: Challenges to Urban Planning for Sustainability and Development*. In addition to the EFC and EPA Region 4, the symposium will be hosted by the University, the CEPM, Louisville Metro Government, and the Federal Reserve Bank of Saint Louis, with supporters including the Dutch Environment Ministry, the Kentucky Chapter of the American Planning Association and others. Planning involved university personnel and a range of planning and environment organizations in the Louisville area. The Call for Papers for presentations was issued in October, 2003, with broad world-wide dissemination via the web and internet listservs. (As of early February, 2004, paper proposals had come from practitioners and researchers in 34 different countries, and confirmed plenary speakers included a member of the Board of Governors of the Federal Reserve, an a Deputy Assistant Secretary from HUD, in addition to local dignitaries.)

Practice Guides in Process as of Late 2003

- "Stimulating Revitalization of Contaminated Lands – Assessing Alternative Incentives to Developers"
- "Identifying Land Use Spatial Change in Your Community"
- "Typologies of Sprawl: What is it, how do we define it, and how do we tailor responses?"

New Dissemination Efforts

Sarah Hollis, EFC Analyst, made initial contacts with, and developed a database of, Region 4 state and local planners and League of Cities/League of Municipalities officials who may be interested in using our guides as part of their training programs. This information will be used for publicity about the Practice Guide series to be disseminated in early 2004.

Publications in Process

Meyer, P.B. Introducing Environmental Factors into the Land Cost - Transportation Cost Tradeoff Logic: A Critical Step Toward Sustainable Urban Planning (In preparation for submission to *Journal of Environmental Planning and Management*.)

Meyer, P.B., and S.L. Coffin.

Approaches to Brownfield Regeneration: the Relative Value of Financial Incentives, Relaxed Mitigation Standards and Regulatory Certainty. (In preparation for submission to *Land Economics*.)

New Initiatives for 2004

Initiatives for 2004 undertaken by the EFC in 2003 included planning for a number of new Practice Guides, intended to take advantage of information garnered in the course of study efforts and other data collection during the year. A number of other potential publications were prepared and submitted for review. Training and technical assistance provision for 2004 was not scheduled in 2003, largely because such activity is generally low early in the calendar year, and the efforts generally have substantial lead times.

New Practice Guides

- "RCRA Financial Assurance – Issues in Determining Real Mitigation Costs and Avoiding New Brownfields"
- "Contaminated Properties in Communities – Regulations, Problems and Solution Resources"
- "State Approaches to Liability Relief and Risk Management for Contaminated Land Redevelopers"

Working Papers in Process

- "Land Re-use and Residual Contamination: Lessons from US Efforts at 'Risk-Based Corrective Action' "
- "The Brownfields Cleanup Conundrum: Trading Off Current Mitigation Costs for Longer Term Monitoring, Liability and Further Requirement Risks"
- "Looking Backwards, Looking Forwards: Economic Rationales for – and Implications of – The 2001 Changes in U.S. Law Governing Brownfield Reclamation"
- "In Search of Good Data: Problems in gathering useful information about redevelopment projects or 'Where have all the developers gone?' "

Special Projects

In addition to its main information generation/dissemination activities with respect to environmental finance and planning for the uses of land in and around urban areas, the Louisville EFC undertook or launched a number of special projects in 2003 that are not described above:

- Provided "Technical Assistance with Public Sector Brownfields Insurance Acquisition," an activity that will continue through August, 2004, to three localities, including one in Region 4, complementing the national research project on "Expediting Public Sector Acquisition of Brownfields Insurance."
- Initiated work on a US Department of Education-funded environmental education and management project, "Partnerships for a Green City." This project involves the University of Louisville, Jefferson County (KY) Public Schools and Louisville Metro Government in a problem-solving and project-planning collaborative consultation to:
 - Develop recommendations for a comprehensive environmental education program for JCPS and the community;
 - Identify research areas that assess children's exposure to environmental pollutants, health outcomes, and impacts on cognitive abilities and behavior; and,
 - Identify approaches for the partners to create sustainable and environmentally friendly buildings and infrastructure (e.g. schools, public buildings, roads, water systems).

EFC Network Collaborations

As an active member of the Environmental Finance Center Network, the Louisville EFC participated in the preparation of proposals for funding of different network-wide environmental finance projects. The Center also initiated efforts at the preparation of a collaborative network project on aspects of environmental finance for brownfield redevelopment, drawing on the collective experience of different centers across the nation. Dr. Peter Meyer, EFC Director, continued in his role as an officer of the EFCN, becoming Vice President at the March Directors meeting in Washington, DC, and attending meetings with EFCN colleagues at the EFAB Summer meeting in San Francisco (August) and the EFCN Fall meeting in Portland, ME (October).

Under its general mission with respect to supporting brownfields revitalization, the Louisville EFC anchored a display booth for the EFCN at Brownfields 2003, the annual EPA-hosted conference on brownfield reclamation and redevelopment, held in Portland, OR, in November. Co-sponsors of the booth were the EFCs from Regions 2 (Syracuse), 3

(Maryland), 5 (Cleveland State) and 10 (Boise State). Network members' informational materials, including the EFCN brochure, were handed out or displayed and available on request. Inquiries about Network and Center services were collected and passed on to other EFCs after the conference.

Utilizing the 'free' resource provided by doctoral students assigned to the Center for Environmental Policy and Management (CEPM), the Louisville EFC will actively participate in the problem analysis phases of the two EFAB workgroups on which Dr. Meyer serves, that on "Innovative Financing Tools" and that on "Preventing Future Non-Funded Abandoned Sites." While the EFAB serves as an advisory body to the EPA itself, many of its deliberations, insights, and findings, may be very valuable to state and local environmental policy-makers and regulators. The Louisville EFC, by actively participating in the EFAB's efforts, thus obtains guidance and information that can be used in development of more Practice Guides for our state and local clients.

2003 Presentations - Conferences - Meetings (EFC staff activities only)

Presentations, whether to academics active in providing policy advice or to practitioners engaged in policy formulation and implementation, are frequently the most immediate and rapid means of communicating new findings and knowledge to improve practice. Moreover, participation in conferences in which information is exchanged constitutes one method by which the Center staff acquires new information and case study data that contribute to our guidance dissemination. The Louisville EFC thus takes care to maintain a high level of activity in this key information dissemination arena. Presentations to academic gatherings are limited to those organizations whose attendees have strong interest in, and thus study and report on public policy practices that can inform environmental finance policies and procedures. International conferences are exceptionally valuable in this regard, since they offer ideas for innovation that are not available in a purely US exchange. The Center's presentation activities in 2003 included the following, all of which facilitated conference participation and information acquisition by the staff involved.

- Meyer, P.B., "Looking Backwards, Looking Forwards: Economic Rationales for – and Implications of – Changes in the New 2001 U.S. Law Governing Brownfield Reclamation." Conference on "Brownfields as Opportunities for Sustainable Development," Instituto Universitario di Architettura di Venezia, Venice, IT, Jan-Feb, 2003.
- Coffin S.L., T. Rockaway, and R. Navalekar. "Financing Local Public Infrastructure: Determining an Effective Revenue Stream that Supports Local Projects." Urban Affairs Association Meetings, Cleveland, OH, March, 2003.

- Heberle, L., and P.B. Meyer, "In Search of Good Data: Problems in gathering useful information about re-development projects or 'Where have all the developers gone?'" Urban Affairs Association Meetings, Cleveland, OH, March, 2003.
- Higgs, G.V., and P.B. Meyer, "Urban Sprawl and Its Effects on the Availability and Response Times of Public Services (Police, Fire, and Emergency Medical Services)." Urban Affairs Association Meetings, Cleveland, OH, March, 2003.
- Meyer, P.B., "Land Re-use and Residual Contamination: Lessons from US Efforts at 'Risk-Based Corrective Action'." Joint ACSP-AESOP Conference, Leuven, Belgium, July, 2003.
- Meyer, P.B. "The Brownfields Cleanup Conundrum: Trading Off Current Mitigation Costs for Longer Term Monitoring, Liability and Further Requirement Risks." Conference on *The Future of De-industrialising Regions: Planning for Urban and Regional Transformation*, University of Dortmund, Regional Planning Institute, Dortmund, Germany, July, 2003.





2003 Annual Report of the Environmental Finance Center Network

Region 5 - Cleveland State University

*Cleveland State University is the Environmental Finance
Center serving the Great Lakes Region*

Introduction

The Great Lakes Environmental Finance Center (GLEFC) assists communities and public, private, and non-profit sector entities in the Great Lakes states of Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin build innovative, cost effective, and high quality strategies for environmental improvement and sustainable economic development.

The GLEFC is housed within the Maxine Goodman Levin College of Urban Affairs at Cleveland State University to provide technical assistance and training in environmental financing for state and local governments, as well as public, private, and non-profit organizations in the Region 5 states. The Center assists these entities in solving financial

problems related to environmental facilities and resources. Services include financial and economic analysis and strategies; policy analysis and planning; brownfields community advisory services; study and information services; and training seminars and conferences. The GLEFC utilizes many tools to assist clients, including financial and budget analysis, market and impact analysis, best practice reviews, training seminars and conferences, focus groups and community visioning/strategic planning processes, and environmental planning and program evaluation.

Accomplishments

In 2003, the GLEFC portfolio of ventures included several new projects, ongoing partnership enterprises that will continue indefinitely, and second and third phases of externally funded projects. The GLEFC provided technical assistance, applied innovative technology, seminars, training, counsel, and testimony to local, state, federal; and not-for-profit organizations and clients throughout Region 5. The GLEFC continues to provide support to the Federal Executive Board of Northeast Ohio in facilitating an intergovernmental (federal, state, and local) collaboration on brownfield finance and redevelopment, now on a state-wide basis. The GLEFC is working with EPA's Region 5 Brownfields Office to assist in initiating regional brownfield collaboration. In addition, the GLEFC is working on a broad array of environmental public policy initiatives that are externally funded, multi-stage, and multi-client projects with the Ohio Department of Natural Resources, the National Oceanic and Atmospheric Administration (NOAA), and the National Estuarine Research Reserves.

Brownfields Technical Assistance

- **Brownfields One-Stop-Shop (BOSS) Forum.** The GLEFC convenes a quarterly forum of federal, state, and local government economic development and environmental officials, commercial and investment bankers, insurance executives, foundation officials, and developers to review brownfield redevelopment projects seeking financial and programmatic support. The principal Forum partners include:
 - U.S. Department of Agriculture (USDA), Urban Conservation, Soil and Water Conservation District.
 - U.S. Department of Commerce, Economic Development Administration (EDA).
 - U.S. Army Corps of Engineers, Buffalo District.
 - U.S. Department of Housing and Urban Development (HUD).
 - U.S. Environmental Protection Agency (U.S. EPA).
 - U.S. Department of Justice (DOJ).
 - National Park Service, Cuyahoga American Heritage River.
 - U.S. Small Business Administration (SBA).
 - Federal Home Loan Bank (FHLB).
 - Ohio Department of Development (ODOD).
 - Ohio Environmental Protection Agency (OEPA).
 - Ohio Department of Transportation (ODOT).

- Ohio Water Development Authority (OWDA).

In 2003, the BOSS Forum convened two meetings in Cleveland, Ohio with over 80 attendees representing public, private, and not-for-profit organizations. The BOSS program included six (6) brownfield redevelopment projects from cities throughout the state, including:

Meeting 1:

- Barberton: Van Buren Industrial Park
- Newark: Newark Processing Site
- Dayton: GM Harrison/Taylor Street Project

Meeting 2:

- Columbiana County Port Authority: National Refractory Site
- Village of Newburg Heights: ISG Landfill Site
- Belmont County: Neffs Sanitary Sewer

Initially a partnership between the GLEFC and the Federal Executive Board of Northeast Ohio, in 2003, the GLEFC expanded the program of the BOSS Forum from northeast Ohio to a state-wide geography, to achieve two goals:

1. To achieve an economy of scale in the market for brownfield redevelopment projects; and
2. To attract an effective level of (interagency and intergovernment) participation from federal, state, and local officials, commercial and investment bankers, environmental insurance executives, environmental engineers and attorneys, foundation officers, and developers.

In late 2003, To facilitate the expanded geography, the BOSS Forum merged with the Columbus, Ohio based Ohio Brownfield Finance Partnership (BFP), an organization initiated by the Ohio Water Development Authority. The new partnership will foster greater geographic and programmatic participation with quarterly meetings throughout the year.

- **Brownfield Technical Assistance, U.S. EPA.** At the request of the U.S. EPA Region 5 Brownfields staff, The GLEFC provided technical assistance to local government brownfield efforts in northeast Ohio, including:
 - Urban Community School: purchase of a contaminated property for the relocation of the school, including providing guidance on phase I and II analysis of the site and application for remediation grants
 - Cuyahoga County Brownfield Revolving Loan Fund

- **Cleveland Veterans Affairs Medical Center Navigation Team:** the GLEFC provided funding and site location consulting services to the VA Team on the environmental issues regarding the relocation of the Brecksville (Ohio) VA facility to the Wade Park section of Cleveland.
- **National Brownfield Association, Ohio Chapter Board Member.** EFC Director Kevin O'Brien serves as the Academic Chair on the Ohio Chapter Board of the National Brownfields Association.
- **Brownfield News, Editorial Board.** EFC Director Kevin O'Brien serves on the Editorial Board of the Brownfield News magazine, as the "brownfield finance" editor.

Finance and Policy Research and Technical Assistance

- **Economic Impact of Infrastructure Investment in Northeast Ohio, 1982 - 2002.** The GLEFC is partnering with the Greater Cleveland Growth Association (Chamber of Commerce) and Team NEO (the regional economic development authority) to define the economic impact of investment in greater Cleveland's road and bridge, water distribution, water treatment, and transit infrastructure over a twenty-year period. Financed by the Ohio Urban University Program and the Growth Association.
- **Slanted Pavement: How Ohio's Highway Spending Shortchanges Cities and Suburbs, Brookings Institution, Center on Urban and Metropolitan Policy:** The GLEFC conducted a research project (financed by the Cleveland Foundation and Brookings) to examine the flow of gas tax funds to invest in the sustainable future of Ohio's roadways. The report was published and presented by Brookings in March, 2003, in Washington, D.C. and Columbus, Ohio.
- **Extending the Amortization Period of Major Capital Projects: Useful Life Workgroup, U.S. EPA Environmental Finance Advisory Board (EFAB):** The GLEFC is participating on an EFAB Workgroup concerned with exploring strategies for creating new revenue flows and linking the amortization of debt to the useful life of the capital installation being financed. A report will be issued in 2004.

Program Development and Evaluation

- **Clean Ohio Brownfield Redevelopment Grant Program and Council:** The GLEFC assisted the Ohio Department of Development and its Clean Ohio program to develop criteria for the evaluation of its second year of operation of its redevelopment grant program and to recommend changes to its application process for the third year of operation.

- **Proposal Strategy: ODOD Appalachian Initiative, Ohio Department of Development, Clean Ohio Program:** The GLEFC assisted the Clean Ohio Brownfield Redevelopment Program in developing an RFP, application process, and evaluation criteria for a brownfield grant fund dedicated to the rural Appalachian region of Ohio.
- **Small Drinking Water System Technical Assistance Proposal Review, Midwest Technology Assistance Center (MTAC), University of Illinois:** The GLEFC assisted the MTAC in reviewing proposals for the provision of technical assistance to small drinking water systems in U.S. EPA Region 5. The GLEFC evaluated and ranked the proposals for MTAC.
- **Coastal Resources Management Training Needs Assessment: Ohio Department of Natural Resources, Old Woman Creek National Estuarine Research Reserve, and the Ohio Sea Grant College Program):** In 2003, the GLEFC concluded a year-long project to assess the market for Coastal Resources Management Training Needs of the Lake Erie Basin in Ohio. The assessment (and market analysis of a prior project phase) defined the market needs for the services of the three agency partners to deliver/coordinate training for policy makers in the Lake Erie Basin. The needs assessment and market analysis served as the data and information base for a strategic plan for Coastal Resources Management for the three agencies. The GLEFC utilized 6 focus group (involving 90 policy makers) sessions across the 170 mile Lake Erie Basin to define the market need for coastal resources management training. The GLEFC bid competitively for the externally funded needs assessment project.
- **Coastal Resources Management Training Strategic Planning: Ohio Department of Natural Resources, Old Woman Creek National Estuarine Research Reserve, and the Ohio Sea Grant College Program):** In 2003, the GLEFC initiated a strategic planning exercise (to culminate in early 2004) for the coordination and provision of Coastal Resources Management Training in the Lake Erie Basin in northern Ohio. The GLEFC bid competitively for the externally funded strategic planning project.
- **Coastal Training Trends Analysis, National Oceanic and Atmospheric Administration (NOAA), U.S. Department of Commerce:** The GLEFC has been engaged by NOAA to review the trends in the strategic plans of the network of 26 National Estuarine Research Reserves' (NERRs) Coastal Training Programs. The GLEFC bid competitively for the externally funded NOAA project.

Brownfields Seminars/Training

- **Redeveloping Brownfields: Making a Smart Investment Seminar:** At the request of the U.S. EPA Region 5 Brownfield Staff and the Mahoning River Corridor of Opportunity, the GLEFC planned and presented a "lenders" seminar in Youngstown, Ohio for local government officials seeking to finance the redevelopment of

environmentally challenged property. The 30 attendees heard from industry experts speaking including commercial bankers, environmental insurance executives, and environmental attorneys, to explore the linkage between funders and local government and private brownfield redevelopment efforts, including:

- The Small Business Liability Relief and Brownfield Revitalization Act and what it means;
- Lending on brownfields: the basics;
- How to evaluate an environmental assessment; and
- How to determine the need for environmental insurance.

Participant feed back was very positive. The GLEFC plans to replicate the seminar in 2004.

- **Brownfield Redevelopment: Nuts and Bolts Finance Seminar, U.S. HUD and U.S. EPA:** At the request of the U.S. EPA Region 5 Brownfield Staff, the GLEFC developed a brownfield redevelopment finance workshop at the EPA Region 5 Headquarters in Chicago. The GLEFC developed and utilized 3 case studies in the workshop to training the 57 participants on the steps in determining the redevelopment viability of a brownfield site, how to develop a pro forma, and how and where to seek financing for the redevelopment.
- **Healthy Homes National Conference, U.S. Department of Housing and Urban Development, U.S. EPA, and the Centers for Disease Control** The GLEFC conducted several sessions over the course of six-month planning process with HUD, EPA and CDC Healthy Homes Conference planning staff to develop a strategy to guide the interagency planning for the 2004 Healthy Homes National Conference to be held in Orlando, Florida in June, 2004.
- **Ohio EPA Voluntary Action Program (VAP) Training for Certified Professionals:** The GLEFC participated in an Ohio EPA training session for certified professionals (environmental engineers). The training sessions are presented twice annually to outline changes in the process for compliance with VAP (brownfield redevelopment) standards and to present innovation/best practices in brownfield redevelopment in Region 5. The GLEFC presented the best practices and innovation in financing brownfield redevelopment.
- **CASTLO Open House, Youngstown, Ohio.** The GLEFC presented information on funding availability for brownfield redevelopment at a conference of a community development corporation in Youngstown, Ohio. The conference had 50 attendees.

- **Ohio Brownfield Finance Partnership.** The GLEFC participates in the discussion group convened by the Ohio Water Development Authority between private developers, and bankers to discuss the opportunities in the finance and redevelopment of brownfields.
- **Brownfield 2003 Conference.** The GLEFC participated in the program of the Brownfields 2003 Conference in Portland, Oregon.

Finance and Policy Seminars/Workshops

- **Environmental Finance in the Great Lakes Region seminars for the Cleveland Council on World CapFinance Training.** The GLEFC conducted environmental finance seminars for U.S. Agency for International Development and U.S. Information Agency sponsored trips for foreign officials and academics. The seminars included the following participants:
 - Russian Environmental Officials (10)
 - Brazilian Mayors (12)
 - South Korean Environmental Academics (4)
 - Canadian Environmental Academics (5)
- **CapFinance Training.** The GLEFC participated in training session at Boise State University for small and medium sized local governments in Idaho and Oregon on the capital planning and financing software package developed by the Boise State EFC. The GLEFC provided a presentation on GLEFC Asset Management and GASB 34 Compliance or *How Does CAPFinance Assist Your City in Managing Infrastructure.*

New Initiatives for 2004

The GLEFC will pursue both continuing and new initiatives in 2003, in the policy areas of brownfields and sustainable futures.

- The GLEFC will continue to assist the Clean Ohio Council with review of decision rules and administrative process for the annual Clean Ohio (brownfield) Remediation Fund grant program. The GLEFC is entering its third cycle of the review.
- The GLEFC is continues to conduct an evaluation of the State of Ohio's Brownfield Revolving Loan Funds.
- The GLEFC will continue to convene Brownfield One Stop Shop (BOSS) Forum and to expand the program's geography to both reach economies of scale on brownfield remediation and on the ongoing supply of fundable brownfield projects.

- The GLEFC will continue to work on brownfield related activities through the U.S. EPA, Region 5 office.
- The GLEFC will finalize its strategic planning process with the Ohio Department of Natural Resources, the Ohio Sea Grant Program, and the Old Woman Creek National Estuarine Research Reserve on the development of a Coastal Resources Management strategy and program for the Lake Erie Basin.
- The GLEFC will assist NOAA and its National Estuarine Research Reserves on strategic planning for Coastal Resources Management Training Needs for policy makers:

Network Collaboration

- CAPFinance. The GLEFC continues to collaborate with the Boise State University EFC to provide training to drinking water and water treatment utilities on the use of CAPFinance; the capital asset management system.
- The GLEFC will continue to work with the members of the Environmental Finance Center Network (EFCN) as collaborative projects emerge.

Presentations, Conferences and Meetings

The GLEFC will continue to make presentations in national, state-wide, regional, and local professional/industry trade groups and organizations on environmental finance related topics. The organizations include the Council of Infrastructure Finance Authorities, Government Finance Officers Association, National League of Cities, Municipal Leagues, national brownfields conferences, Build Up Greater Cleveland, the Federal Reserve Bank of Cleveland, and U.S. EPA Region 5.

RESULTS

The Great Lakes Environmental Finance Center continues to provide assistance to state agencies and local communities and not-for-profit organizations on environmental compliance and sustainable strategies. The continued growth in the annual GLEFC program and the expanding partnerships with national, state, and local entities provides evidence of the impact of the organization.



2003 Annual Report of the Environmental Finance Center Network

Region 6 - New Mexico Institute of Mining and Technology

*The New Mexico EFC was established in 1992 as the first
Environmental Finance Center*

Introduction

The Environmental Finance Center serving EPA Region 6 (NM EFC) formally completed its transfer to the New Mexico Institute of Mining and Technology (New Mexico Tech) in June of 2003. The Center is still located at the same offices in Albuquerque, New Mexico and maintains the staff and activities it conducted at the University of New Mexico. The New Mexico EFC (NM EFC) believes this change will open up additional opportunities for its clients and will increase the overall support for the center.

The NM EFC is dedicated to helping state, local, and tribal governments meet environmental infrastructure needs and regulatory compliance through state and local capacity building. Capacity building includes enhancing technical, managerial, and financial capabilities to achieve consistent and sustainable regulatory compliance and to develop sustainable infrastructure.

The NM EFC assists in local capacity building by:

- Examining alternative approaches to meeting regulatory compliance or environmental infrastructure needs
- Empowering communities to act as the "drivers" for their own projects
- Assisting with procuring professional services
- Presenting funding alternatives
- Acting as a bridge between federal, state, local and tribal governments
- Presenting neutral analyses of issues or projects
- Gathering stakeholder input.

To complete its projects, the UNM EFC relies on many tools and techniques, including: stakeholder meeting facilitation; internal agency workgroup facilitation; advisory group development; financing alternatives presentation and directories; technology transfer; charrettes, conferences and workshops; research publications and reports; and one-on-one assistance to state, local, and tribal governments and environmental service providers (e.g., water and wastewater systems.). The NM EFC attends many conferences, trainings and workshops as a participant, exhibitor, and presenter to gather information to share with its clients and to disseminate information regarding NM EFC projects that could be of interest and benefit to other entities.

The NM EFC has been very active over the past year and has completed numerous projects, including:

- Capacity Development Activities for Region 6 states
- Capacity Development for Tribal Water Systems
- Assistance to New Mexico SRF Applicants
- Resource-Based or Unified Source Water Protection Project
- Tribal Operator Certification Institute
- Independent Analysis of Hydroscope Technology for the City of Albuquerque, NM
- Public Management Finance Program
- Resource Geographic Information System Program
- Purchase of the town of Playas, NM
- Multiple Barrier Evaluation Training for U.S. Forest Service

Accomplishments

Capacity Development Activities for Region 6 States

One of the major thrusts in capacity development in 2003 was rate setting training. There is still a tremendous need for water systems to set more equitable rates that fully recover costs.

The NM EFC began using the Missouri ShowMe Ratemaker model last year and has continued to use this product. The NM EFC presented five (5) rate setting workshops that covered all seven (7) Councils of Government in the State. Over 150 people attended these trainings and each participant was given the opportunity to use the program during the training. At three of the workshops, the participants were also given training on capital budgeting. Rate setting workshops were also held at the New Mexico Rural Water Conference in Las Cruces, New Mexico. In addition to the workshops in New Mexico, the NM EFC also conducted a workshop in Dalla, Texas, at the EPA Region 6 offices so that the other Region 6 states could see this product as well. Representatives from Texas, Arkansas, Louisiana, and Oklahoma attended this training as well as EPA Region 6 staff. The NM EFC also provided one-on-one assistance to several communities in New Mexico to help them establish adequate rates.

The NM EFC offered to conduct stakeholder workshops on capacity development for each Region 6 state. Texas and Arkansas wanted this type of meeting and workshops on this issue were held during 2003 for these states. In general, the meetings indicated that some progress is being made in the area of capacity development, but there is a need to have better tools to measure performance improvements.

The NM EFC has been working with the New Mexico Environment Department (NMED) Drinking Water Bureau to address the need for source water protection planning. This effort is a multi-organizational approach that includes all the main assistance providers and NMED. The collaborative effort is termed "Partners in Protection" and is intended to encourage small to medium sized water systems to undertake source water protection planning.

For several years, the NM EFC has been working with all of the funding agencies in New Mexico to develop a unified application for funding. The application was finally completed and signed by the Governor in 2003. The NM EFC is proud to have been a part of this effort to improve the funding process for communities throughout the State.

Protecting Public Health Using the Multiple Barrier Approach for Tribal Water Systems

The NM EFC has expanded its Tribal assistance efforts and framed them in the context of the multiple barrier approach to public health protection. The multiple barrier concept is one that focuses on the source, treatment, and distribution components of the water system and makes clear the need to effectively use all of these barriers to prevent contamination. This focus is used throughout the assistance efforts to increase overall compliance with drinking water regulations and to improve public health protection. In 2003, there continued to be a drop in the number of non-complying systems with very few consistent non-compliers. Also, the number of monitoring violations was greatly reduced.

To accomplish the goals of this project – increased compliance; improved technical, managerial, and financial capacity; and greater public health protection, the tasks were divided into three main categories.

Compliance Assistance – These activities include assistance with compliance sampling, managing laboratory contracts for the analysis of compliance samples, maintaining a compliance database, and following up with any water system that has a “hit” or positive bacteriological result.

Capacity Development – These activities include one-on-one assistance to the water systems in increasing technical, managerial, or financial capabilities. Examples of activities include: rate setting training and assistance, board development, ordinance development, educational outreach materials, technical training, phone on-site assistance with problems, and troubleshooting.

Beyond Compliance – The activities in this category are those activities that are not required by any regulation but will push the water system in the direction of increased public health protection. Specific examples include: Comprehensive Performance Evaluations or CPEs, Performance Based Training (PBT), and Multiple Barrier Evaluations and associated training. These activities will push the Tribal water systems beyond just complying with the minimum regulatory requirements.

In addition, the NM EFC has begun working more closely with the Indian Health Service (IHS) to better coordinate activities and to ensure that personnel and money resources are used wisely. Particular efforts to coordinate include public outreach materials, the coordination of sanitary surveys with the NM EFC’s multiple barrier evaluations, and arsenic testing.

In the next year, the NM EFC will continue to work toward greater compliance and improved performance beyond compliance.

Tribal Operator Certification Institute

The NM EFC received EPA Region 6 approval on its Tribal Operator Certification Institute in 2002, allowing it to give the first Region 6 Tribal Water Operators certification test in January 2003. Two of the four operators taking this test passed and received a certificate from EPA indicating that they were Level 1 Water Treatment Operators.

The NM EFC offered tests two additional times in 2003. Each test is preceded by a practice test and review session to give the operators an opportunity to experience a test setting prior to the real event. Tests will be offered once per quarter in 2004.

To ensure that the program is meeting the needs of tribal operators, the NM EFC established the Tribal Utility Advisory Committee (TUAC.) This group meets quarterly, is facilitated by the EFC, and includes all tribes who wish to participate. The group discusses potential changes to the guidelines, training that may be needed, approves the annual report, and generally provides guidance and advice to the NM EFC.

Assistance to New Mexico SRF Applicants

In the summer of 2003, the NMFA issued an RFP for engineering and environmental services for small water systems. The NM EFC lead a team of small, private engineering and environmental firms and was selected for this work.

As the lead EFC for this project, the NM EFC is working with the EFCs in Maryland, North Carolina, Boise State and New York, to develop resource-based or unified source water protection plans for clusters of communities in eight (8) different states. This project builds

upon the work performed under the Mora County Unified Source Water Protection Plan Pilot Project and the skills of the other EFCs in the project.

This project involves assistance in the development of a source water protection council, the examination of potential sources of contamination, determining appropriate source water protection measures that may minimize or eliminate contamination concerns, preparing a unified source water protection plan, and implementing the plan. The EFCs will facilitate stakeholder and council meetings and provide technical information transfer.

The eight states that the EFCs are working in, include: New York, Maryland, West Virginia, North Carolina, Texas, Colorado, Idaho, and Oregon. The NM EFC is conducting the projects in Texas and Colorado. The Texas project includes water systems around Lake Meredith. This lake is operated by the Canadian River Municipal Water Authority (CRMWA) and supplies water to Amarillo and Lubbock and nine other communities. The major concerns for source water protection on this project include: oil drilling and exploration, ranching, recreational uses of the lake, and septic systems around the lake.

The project in Colorado focuses on the systems that are pulling water out of the Boulder Feeder Canal. This open canal supplies water to the City of Boulder and a few smaller towns nearby. The open canal is exposed to runoff from agricultural and residential areas as well as recreational impacts. There is a proposal to increase the recreation in this area that in turn would increase the potential for source water impacts. This issue will be addressed within the context of the source water protection project.

The work for this project in 2003 was a continuation of the work started in 2001 and 2002. The project will be completed in June 2004.

Independent Analysis of Hydroscope Technology for City of Albuquerque

The City of Albuquerque was investigating a particular technology that could be used for essentially non-destructive evaluations of pipe conditions. They wanted to have an independent analysis of the cost-effectiveness of using this particular pipe analysis technique in the context of their overall pipe replacement and repair program. The technology can detect certain types of problems in ductile iron, cast iron and steel pipe. A proprietary software is used to make determinations as to which of the problems detected is likely to cause a future leak.

The EFC completed this project in June of 2003 with two reports and a presentation of the results to the City. The first report summarized Phase I of the project and included the examination of 5 years of City repair data taken from work log records. An extensive access database was developed to aid in analyzing the data. The results showed a much higher break rate in 4 and 6 inch steel pipe of the age range 40 to 60 years than for pipes in the rest of the

The Phase II report investigated the evaluation technology's ability to cost-effectively meet the needs of the City's water utility. Considerations included the technology's ability to investigate the type of pipe that was breaking, the cost of using the technology, the life cycle cost of using the technology to make spot repairs and replacements versus the life cycle cost of complete replacement, the quantity of pipe within the system, and the ability of the technology to accurately predict where a break was most likely to occur. The report concluded that it was not cost-effective for the City to use this technology on a general condition assessment basis. However, it was recommended that the City consider further investigation of the pipe that was analyzed to see over time where breaks were occurring in relation to known points of weakness in the pipes. Also, the City could investigate the possibility of using the technology to evaluate very specific pipe segments that carried high risk of failure or high consequence of failure. The report also recommended that the City consider electronic data collection for work records and the development and implementation of an Asset Management Program.

Multiple Barrier Evaluation Training for U.S. Forest Service

The training is two (2) or three (3) days and includes classroom and field exercises. Field exercises allow participants to survey a water system to see if they can determine deficiencies in the barriers and recognize the problems that may occur if the deficiencies are not corrected. The hope is that if operators understand the reason a survey person notes a deficiency they may be more likely to fix the problem or they can survey their own system and fix any problems they find.

The U.S. Forest Service contracted with the NM EFC to deliver this training to personnel working for water systems in New Mexico and Arizona Forests. The training had a diverse group of approximately 15 participants, including engineers, operators, managers, and technicians.

Playas, NM

New Mexico Tech is working towards the purchase of the Town of Playas in southern New Mexico near the Mexico/New Mexico/Arizona. This town is being purchased to establish a Homeland Security training facility. This facility will allow trainees to participate in simulations to learn how to handle emergencies. The NM EFC is involved in the environmental issues surrounding the initial set up of the facility and worked in an advisory capacity to NM Tech administrators as the town was being purchased. The NM EFC will be conducting an environmental assessment, in accordance with NEPA requirements, prior to the start up of activities on the site, but will not be involved in any of the facility's operations.

Public Management and Finance Program (PMFP)

The NM EFC has continued to work with the Syracuse EFC on the Public Management and Finance Program. The NM EFC believes that this approach is one that could benefit NM communities and strongly desires to bring this program to the state and region. The NM EFC participation in Syracuse EFC events is intended to provide several benefits: 1) demonstrate the collaborative ability of the individual centers, 2) build the skills of the NM EFC to bring this project to NM, and 3) share expertise gained in Region 6 with Region 2 and vice versa. This past year, the NM EFC participated in the April PMFP event in Minnowbrook, New York. During the event, the NM EFC presented a session on rate setting and participated in the community simulations.

The PMFP offers hands-on technical assistance to rural communities through the development of teams of technical assistance providers. At the April 2003 PMFP event, the teams were composed of representatives from accomplished nonprofit, academic, government, and private organizations that have established histories in providing technical assistance to rural communities. These organizations were brought together to provide information, technical assistance and support to small communities in need of assistance, particularly in the area of water and wastewater infrastructure.

New Mexico Resource Geographic Information System

The NM EFC has been a principal participant in the NM Resource Geographic Information System (RGIS) Program since 1996. This program was established by the New Mexico state legislature to assist state and local governments with developing and implementing GIS

programs. The NM EFC was one of three public service and research units of the University of New Mexico that comprised the RGIS Team. The other units are the Earth Data Analysis Center and the Bureau of Business and Economic Research. The RGIS program was able to make significant contributions to the local governments in the State of New Mexico and many were able to implement, improve, or gain data for GIS systems. In June of 2003, the NM EFC ended its affiliation with this program. The EFC's move to NM Tech and the fact that needs for the RGIS Program are more related to developing and serving spatial data as opposed to local government assistance, made it necessary for the NM EFC to give up this program. The NM EFC will maintain a loose affiliation with the RGIS program and will continue to do what it can to encourage local governments to move in the direction of developing GIS tools to aid in decision making.

New Initiatives for 2004

The new initiatives for the NM EFC are highlighted below. These initiatives build upon the work efforts of the NM EFC for the past several years.

Advanced Asset Management

The EPA has included Advanced Asset Management as one of the key elements in its approach to addressing the Infrastructure "Gap." The Gap is the amount of money needed to address the Nation's infrastructure needs minus the current available funding. Advanced Asset Management is an approach to optimize a water or wastewater system's infrastructure management. It includes strategies to determine the optimal point of infrastructure replacement and when a system is financially better off with rehabilitation or repair. The development and implementation of Advanced Asset Management strategies at water systems will help reduce overall life cycle costs and help decrease the Gap. However, it is important for water and wastewater system owners, managers, boards, operators, financial staff, and elected officials to receive information on the availability of the approach and the benefits it can provide. The NM EFC will be making presentations, working with water systems, and generally promoting this concept during 2004 as part of its capacity development activities.

Operator Certification Pathway Training

The NM EFC provided opportunities for Tribal water operators to receive certification during 2003. Clearly, the testing results showed a need for additional, intensive training for operators in order to increase overall operator competency and knowledge and to help them gain sufficient knowledge to be able to pass the test. An approach was tried in 2003, but it did not achieve the desired results and there were many difficulties that occurred during the training. In consultation with the Tribal Utility Advisory Committee, the NM EFC developed a new training approach that will be conducted throughout 2004. This approach, titled Pathway

Training, will include day long classroom and field training components every 3 weeks. It follows the Skeet Arasmith small water system training manual and covers all elements of operating a small water system. The training is geared for Level 1 operators and at the end of the training operators will take the Level 1 certification test (test date in December).

Tribal Compliance with the Arsenic Standard

The EPA issued its final Arsenic standard which lowered the Maximum Contaminant Level (MCL) from 50 micrograms per liter to 10 micrograms per liter. There are approximately 12 Tribal water systems in New Mexico that may have difficulty meeting this new standard. Some of these systems are well above the standard of 10 and will have to seek alternatives such as new source, blending of sources, or installing treatment. In approximately six cases, the system's arsenic level is between 10 and 20 ppb, making it unclear whether the systems will violate the standard or not. The EFC's previously sponsored study on arsenic at three Tribal systems indicated that the influent arsenic concentration can vary substantially. Therefore, if the systems that are between 10 and 20 conduct quarterly arsenic monitoring, as outlined in the arsenic regulation, they may have levels low enough to meet the standard. The actual compliance sampling for the new standard can not be completed until the next compliance period (2005 – 2007) but the EFC will be working with the Tribes in 2004 to do special studies on arsenic to try to determine prior to 2005 which systems will most likely violate the standard of 10 ppb. The EFC will also be working with UNM to provide some arsenic training for Tribal operators.

Public Management Finance Program (PMFP)

The NM EFC has been working with the Syracuse EFC to try to bring the PMFP concept to the State of New Mexico. The efforts over the past two years have not been successful, but the NM EFC has been able to conduct some small PMFP-like events. The NM EFC will be working with the Syracuse EFC and the NM Rural Development office to try to bring this very important program to the state and the region in 2004. The EFCs strong collaborative efforts with other assistance providers in the state as well as the previous year's PMFP-like events make 2004 an especially good year to begin this program.

Water System Security

The NM EFC wrote a proposal on behalf of the EFC Network to assist in the water system security efforts. This proposal was submitted in January 2003 and was not funded. However, the EFCN, lead by the NM EFC, has continued to investigate opportunities to assist in the water system security efforts and may work in this area in 2004.

Pacific Islands Financing

The NM EFC wrote a proposal on behalf of the EFC Network to assist EPA Region 9 with financing issues related to the Pacific Island Nations. These Nations face tremendous environmental problems, particularly related to water and wastewater infrastructure, and require significant amounts of money to overhaul them. Traditional finance approaches have not solved the problem and new innovative options are needed. One possibility to explore is an environmental revolving fund that would allow the Pacific Island Nations to take loan moneys for any environmental projects. The EFCN hopes to be working with EPA Region 9 on this critical project in 2004.

Water Conservation

The NM EFC began a project for the Office of the State Engineer, the Local Government Division, and the NM Environment Department to explore ways in which water systems could work collaboratively to address water conservation and drought management. The initial project is piloting this approach for three areas in New Mexico. The project will be completed in June 2004. The NM EFC will be exploring opportunities for additional work in this area in 2004.

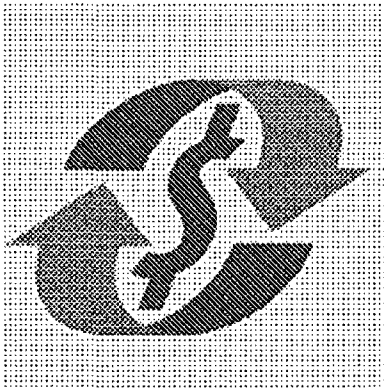
EFC NETWORK COLLABORATIONS

The NM EFC has collaborated with other EFCs this past year on a variety of projects and proposals. Those collaborations are listed below.

Project	EFCs Included in Collaboration
Public Management Financing Program	Syracuse EFC (lead), EFC9, <u>EFC@UNC</u> , Maine EFC, UNM EFC
Resource Based Source Water Protection	UNM EFC (lead), Syracuse EFC, Maryland, Boise State EFC, and EFC@UNC
Rate Setting	Syracuse EFC, Maryland EFC
Water System Security Proposal	NM EFC (lead), Syracuse EFC, Boise State EFC, <u>EFC@UNC</u> , Louisville EFC, Maryland EFC, EFC9
Pacific Islands Financing Proposal	NM EFC (lead), Cleveland EFC, Boise State EFC, <u>EFC@UNC</u> , Louisville EFC, EFC9

CONFERENCES

Name of Conference	Date and Location	EFC Involvement
AWWA Source Water	January 20 – 21, 2003	Presented poster session and
Source Water Briefing to EPA	February 5, 2003	Presented briefing to staff of
Environmental Financial	March 4 - 5, 2003	Participated in Board Meeting
Environmental Finance Center	March 5 – 6, 2003	Participated in Meeting
American Planning Association	April 1, 2003	Made presentation as part of the
Public Management Finance	April 22 – 24, 2003	Presented session at workshop
EFC Meeting with EPA	May 8, 2003	Participated in Meeting
EPA Regions 4 and 6 Capacity	May 21 – 22, 2003	Made Presentation
EPA Source Water Protection	June 2 – 4, 2003	Presented a Training Workshop
IHS Training on Sanitary	July 8 – 10, 2003	Assisted in Sanitary Survey
EPA Regions 7,8,9 and 10	July 29 - 30, 2003	EFC Made Presentation and
Environmental Financial	August 4 - 5, 2003	Participated in Board Meeting
New Mexico Rural Water	August 12 – 14, 2003	Presented Workshop
EFC Network Directors Meeting	October 1 – 3, 2003	EFC Participated in Meeting
Association of State Drinking	October 6 – 8, 2003	Delivered presentation
EPA Region 6 Tribal	October 15 – 16, 2003	Participated in Meeting
New Mexico First Town Hall on	October 2003	Invited Participant to Meeting
Council of Infrastructure	November 10 - 11, 2003	EFC Participated in Conference



2003 Annual Report of the Environmental Finance Center Network

Region 9 - California State University at Hayward

*The EFC at California State University focuses on Small
Business and Green Products*

Introduction

The Environmental Finance Center located in Region 9 at California State University (EFC9) is a university-based EFC working for greener communities through cleaner business, by advancing the environmental industry and promoting pollution prevention and source reduction.

Our mission is four-pronged:

1. To help entrepreneurs develop and finance new and innovative environmental technologies,
2. To encourage small business to adopt source reduction and pollution prevention in the manufacturing processes,
3. To educate and encourage consumers to choose green business and green business products, and
4. To help federal, state and local governments establish the necessary tools to foster cleaner business.

To that end, working with both the private and public sectors, EFC9 pursues its mission through numerous tools including:

- Green business development
- Environmental business incubation
- Finance programs & directories
- Industry surveys & guides
- Technology transfer
- Charrettes, Conferences & Workshops
- Research publications and reports, and
- Hands-on assistance to small business.

Throughout the past year EFC9 has undertaken six new and one ongoing initiative working with both the private and public sectors. As a result, much of the work in 2003 laid the groundwork for project results and events in 2004. Those projects include:

- Brominated Flame Retardants and Foam Furniture and Mattresses
- Western States Green Business Program Coordination
- Business and Environment in Hawaii
- Environmentally Beneficial Behavior in Television
- Assistance to Environmental Business
- Phoenix Arizona Brickyard Charrette
- Western Regional Pollution Prevention Network Conference Workshop and Sessions

Accomplishments

Brominated Flame Retardants Initiative - Overview

In 2001, EFC9 and U.S. EPA Region 9 Pollution Prevention (P2) Team and the Solid Waste Section launched the Electronic Waste Initiative on Brominated Flame Retardants (BFRs). Brominated flame retardants are a class of brominated chemicals used in electronics to reduce flammability. Some of the brominated flame retardants have established adverse health effects and there is increasing concern about the levels of BFRs found in human and animal blood and tissue. In response, EFC9 and EPA Region IX planned a two-day, multi-stakeholder Roundtable focused on brominated flame retardants and their alternatives in electronic products. The primary purpose of the meeting was to facilitate a wide and open exchange of information on the uses and potential environmental and human health impacts of, and alternatives to, brominated flame retardants in electronics.

As a follow-up to the conference and roundtable discussed above, EFC9 and U.S. EPA Region 9 held a second two-day event in April 2003 to address the issue of BFRs in foam furniture and bedding. The following is a summary of the results of that conference and roundtable.

Brominated Flame Retardants (BFRs) in the Foam Furniture and Bedding Industries Conference and Roundtable - Overview

In April 2003, a 2-day Conference and Roundtable was held in San Francisco to examine the use of Brominated Flame Retardants (BFRs) in the foam furniture and bedding industries. While the day one conference was designed to provide background information on the potential health and environmental impacts of and alternatives to BFRs, day two was devoted to exploring the following two topics:

1. Exploring BFR pathways and prevention, and
2. developing alternative approaches to reducing product flammability.

The following is a summary of the Roundtable sessions.

Session I - Alternatives

Session I commenced with a discussion of the barriers to the use of alternatives to BFRs in foam furniture and bedding. In general, the following six key barriers were identified by the group as applicable to all segments of the chain, from BFR producers to consumers:

Barriers

- Lack of information on alternatives from toxicology and impact on human health and environment, to effectiveness as flame retardants;
- Fears of long-term liability because of the data gaps discussed above;
- Potentially high production costs, which would be transferred to the consumer;
- A reduction in the profitability of the product;
- Lower product quality in terms of comfort and style; and
- Consumer ignorance of polybrominated-diphenyl-ethers (PBDEs) provides little market pressure to change.

Opportunities

Following the discussion of barriers, participants identified the following six potential *Design for Environment* (DfE) projects that could promote the use of alternatives in foam furniture and bedding.

- Create a flame retardant spectrum showing select EH&S and performance characteristics of chemical flame retardants.
- Provide expanded MSDS (Material Safety Data Sheets) and DfE data sheets on alternatives.
- Develop an alternatives assessment worksheet.
- Promote a Cradle-to- Grave or Cradle-to Cradle design project.
- Fund academic/peer reviewed paper series on alternatives.
- Prepare consumer education materials on PBDEs.

Session II - Pathways and Prevention

The Pathways and Prevention Group was dedicated to determining data gaps and critical needs in order to better understand PBDE pathways and the appropriate interventions.

Critical Needs

The critical needs that were identified included:

- Mass balance, life-cycle and source characterizations including production, consumer product use, disposal and recycling,
- Water, wastewater, stormwater characterizations including levels in influent, effluent, sludge, air and soil.
- Market basket assessment and/or producer-to consumer cycle analysis,
- Household, office, occupational, and transport exposure studies including analyses of dust, carpet, air filters and consumer products,
- Breakdown and absorption studies of various congeners in humans and the environment,
- Fate and transport of PBDEs in humans and the environment, and
- Expanded bio-monitoring including communities in the US and UK.

Brominated Flame Retardants Initiative - Results

There have been numerous results from this three-year initiative. First and foremost, certain types of brominated flame retardants will be banned as of 2006 in California. In addition, a California Member of Congress is working on a national ban. The ban initiative was achieved through a multi-stakeholder, public, private and nonprofit partnership that originated at the EFC/EPA roundtable.

Further, US EPA has embarked on a three-year *Design for Environment* manufacturing challenge with the furniture industry. Also, press coverage of BFRs and related issues has increased dramatically, and numerous electronics and foam furniture companies are looking for or have already implemented alternatives. Finally, EFC9 will be working with a major

furniture manufacturer in the Bay Area throughout 2004 to help them go beyond compliance and phase out toxic products and practices in addition to BFRs.

Western States Green Business Program (GBP) Coordination

A Green Business Program (GBP) publically recognizes businesses and in some cases government agencies and non-profit organizations that operate environmentally responsibly. It is a voluntary program in which the GBP certifies applicants who comply with federal, state and local environmental regulations as well as undertake additional multimedia measures to conserve energy, water and other resources, and institutionalize the process of reducing pollution and waste.

In 1996 the Bay Area Green Business Program was launched, and since that time six participating counties have certified over 270 businesses. As the Bay Area GBP has grown, other counties and states have taken note, and there is now broad interest in implementing Green Business Programs throughout Region 9. In 2002, both the states of Hawaii and Arizona launched GBPs and in California, a number of counties are pursuing programs including, San Francisco, San Mateo, Santa Cruz/Monterey, Sacramento, and San Diego.

While an increase in Green Business Programs is highly desirable, rapid implementation without consistency across all jurisdictions is not. Simply put, it is imperative now that the concept is spreading, that "Green Business" carries the same standards and meaning throughout the four-state region. In response to this concern, EPA Region 9 requested EFC9's assistance in coordinating Green Business Program efforts throughout the Region to ensure continuity within individual programs.

To achieve this goal, starting in 2003, EFC9 is the Western States Green Business Program Coordinator. Our role is to promote, develop and institutionalize multimedia pollution prevention and resource conservation in Region 9 businesses while ensuring consistent growth and continuity for regional Green Business Programs. More specifically, in 2003, EFC9 has accomplished the following.

- Assisted the counties of Sacramento, San Diego and San Francisco with their Green Business startup operations. All three counties will launch their programs in 2004.
- Commenced work with the City of Los Angeles to help them launch a Green Business Program.
- Provided information, education and materials when requested and have helped review new program checklists as they have been developed.

- Regularly attended Bay Area Green Business Meetings.
- Worked with USEPA and the Bay Area program to help establish a measurement system for all Region 9 programs. The measurement database will be launched in 2004.
- Worked with the State of California to codify statewide Green Business Standards so that they comply with the Bay Area model.
- Launched the Green Business Clearinghouse on the EFC website (www.greenstart.org/efc9).

Business and Environment in Hawaii

EFC9 has been working with two agencies in Hawaii to assist them with their Green Business efforts, the Hawaii Green Business Program and the Department of Business, Economic Development, & Tourism. Hawaii's primary focus has been on hotels with an emphasis on waste reduction and water conservation. In early 2003, the Green Business Program and the Department of Economic Development approached EFC9 about developing a workshop that would focus on business and the environment. After several conference calls and meetings in San Diego, Lake Tahoe and Hawaii a plan has been developed for a number of workshops to be held on Oahu and Maui in late May 2004. The workshops will include:

- Green Janitorial For Hotels,
- Integrated Pest Management for Hotels,
- Green Office Practices for Hotels,
- Green Purchasing Hotels,
- Greening Commercial Buildings, and
- Workshop on E-Waste

Environmentally Beneficial Behavior in Television

For this project EFC9 is adopting the private sector concept of "product placement" to place environmentally beneficial behavior (EBB) in television shows. Possible examples include having actors bring cloth bags to the grocery store, recycle soda cans, use worm bins and consider how to properly dispose of a computer monitor and other electronic waste accumulating in their closets. EFC9 has chosen to focus on TV shows, rather than movies, since they have shorter turn around time (from conception to screening) and there is greater likelihood of repeat showings.

Tasks for this project include:

- Conducting research through surveys and focus groups to determine which EBB's will be the project's focus;
- Identifying target markets, including specific groups within such markets, to determine which groups will be most receptive to which messages and most likely to change their behaviors; and
- Identifying target shows, television stations, and/or studios receptive to the EBB placement concept and which would most effectively reach the target markets.

While the initial phases of this project will be completed in 2004, EFC9 completed the following work in 2003:

EFC9 held three stakeholder meetings with various groups to identify potential EBBs. Focus Groups were held both at USEPA Region 9 and at the California Integrated Waste Management Offices and a separate meeting was held with business school faculty members from UCLA who are working on a related project seeking to "green" the motion picture industry.

In addition, through focus group discussions and consultation with US EPA, EFC9 has determined the following types of and or locations within television shows to place EBBs. In addition, EFC9 will identify 8-10 Environmentally Beneficial Behaviors to place in the following types of shows and and/or locations within those shows. Each show/location will have a "one-pager" which describes the overall project, and provides a list of EPA approved EBBs. EBBs will be selected based on their relative importance and size of the problems they address.

Dramatic Series including Soap Operas

Home
School
Office
Hospital
Restaurant/café/bar
Other workplace

Reality/Non-Scripted Shows

Home improvement/remodeling
Arts & Crafts
Travel
Cooking

Auto
Game Shows

Assistance to Environmental Business

Since its beginning, EFC9 has worked to promote the US environmental industry at home and abroad. In 2003, EFC9 partnered with the US Department of Commerce, California Department of Commerce, California EPA, the Bay Area World Trade Center and Advancing California's Emerging Technologies (ACET) to help California-based small and medium sized environmental businesses gain access European markets.

For two years, ACET and the Department of Commerce have sponsored and supported European trade missions for California environmental companies. Traditionally US Environmental Technology companies have shied away from foreign markets and, as a result, are missing opportunities to grow and develop. The primary focus of this project was to bring US and California companies into the European market through reverse trade missions that would introduce US companies to their European counterparts at environmental trade shows in the United States.

To that end, EFC9 attended and reviewed the viability of a number of conferences in California and the US to identify possible venues for reverse trade missions from Europe. These missions would bring companies from Europe that would partner with and ease the path for US companies to enter the European market. To assess the viability of a reverse trade mission, EFC9 staff attended the following conferences and trade shows in 2003:

May 2003, San Diego - Air and Wastewater
June 2003, Ontario, CA - California Resource Recovery Association
Sept 2003, Chicago - National Safety Council Annual Congress & Expo
Sept 2003, Phoenix - Association of Water Technologies
Oct 2003, Los Angeles - Water Environment Federation
Oct 2003, Portland - Brownfields 2003
Oct 2003, Tahoe - Western Regional Pollution Prevention Network

In short, no conference was identified as an appropriate venue. Unlike Europe, the US has no major trade shows where companies, large and small, exhibit their environmental technologies, by the thousands, to interested buyers (such as Pollutec in France or Aquatech in the Netherlands). Such a show would have to attract 20,000 to 30,000 participants in order to make it a worthwhile investment for European high-tech environmental companies. Especially if we are trying to attract European buyers to the West Coast.

As a result, EFC9 is looking at the feasibility of a trade mission to Aquatech 2004 to be held in Amsterdam in October. At this time, due to the economy, and the general nature of the industry, it is proving extremely difficult to generate interest in this venue.

Phoenix Brickyard Charrette

In 2003, EFC9 laid the groundwork for a charrette to be held in Phoenix, Arizona in April, 2004. EFC9 agreed to develop and facilitate the charrette, which aims to find ways to reduce emissions from the Phoenix Brick Yard. We worked with Region 9 and Maricopa County (Arizona) to help generate stakeholder buy-in for the charrette, which would explore alternative financial mechanisms to reduce hydrogen fluoride (HF) and hydrogen chloride (HCl) emissions from the Phoenix Brick Yard.

In general, the community is industrial and low-income. Residents are gravely concerned about the air quality in their community. They blame the Brick Yard for many of their problems. However it appears that the Phoenix Brick Yard will not be subject to the Brick Manufacturing MACT (Maximum Achievable Control Technology) standard which takes effect in 2006. The Phoenix Brick Yard will most likely fall below the production threshold, which triggers the MACT. As a result, Maricopa County has been in discussions with Phoenix Brick Yard to encourage voluntary control measures to reduce its HF emissions.

To that end, EFC9 has been asked to assist their efforts. The concept of the charrette has support from all sides (including the Brick Yard) and will include financial and technological experts to explore alternatives to reduce emissions at the Brick Yard.

Western Regional Pollution Prevention Network Conference (WRPPN) Workshop and Sessions

As a key steering committee member for the WRPPN, EFC9 is significantly involved in the planning for the WRPPN Conference held annually in California. In 2003, EFC9 planned and facilitated the following workshop and sessions, which were among the highest attended events at the conference.

Green Business Workshop

Because of overwhelming interest in Green Business Program meetings EFC9 hosted at the WRPPN conference for the past three years, it was determined that a four hour workshop would be appropriate to address the myriad questions about this growing program. At the 2003 WRPPN, EFC9 helped plan and facilitate a session that included the following topics:

- Budget/Financing a Green Business Program
- How to Choose an Industry Sector

- Time and Steps to Starting a Program
- Choosing an Organizational Structure
- Partnering - Who and How?
- Innovations

Precautionary Principle Session

There has been significant interest in Region 9 in the Precautionary Principle and San Francisco's efforts to adopt the policy as a guiding force behind purchasing decisions. The Precautionary Principle states that when an activity or product raises threats of harm to human health and/or the environment, precautionary measures should be taken if there is a preponderance of evidence that supports the threat. Simply put, the Principle advises that we err on the side of caution. To that end, EFC9 proposed, planned and facilitated this 90-minute session, which included proponents of the principle from the international to the city (San Francisco) level.

Emerging Pollutants Session

This 90-minute session focused on a discussion of three emerging pollutants, D5/Green Earth an alternative to perc for dry cleaners, Pharmaceuticals in Our Waterways and Perfluorooctanoic Acid (PFOA) which is used in film coating and circuit boards.

New Initiatives for 2004

Working With Tribes

In partnership with the Western Regional Pollution Prevention Network, EFC9 will begin an effort to introduce pollution prevention and green business principles to tribes throughout the region.

Evaluating Casinos

In Region 9, there are two major industries that leave significant environmental footprints yet are largely untouched by environmental pressures - the motion picture industry and the gaming industry. To that end, EFC9 will begin a casino initiative that will explore the potential for the gaming industry to conserve resources and prevent pollution.

Port of Los Angeles

EFC9 will assist with a two-day conference in Los Angeles to assess the local and regional impacts of Port development in 2004. A possible outcome of this conference will be an initiative to develop a tool to help communities address the environmental impacts of large developments.

EFC Network Collaborations

Public Management and Finance Program - EFC Region II

June 2003, Minnowbrook, NY

Over the years, EFC9 has worked with EFC2 to help develop and launch the Public Management and Finance Program (PMFP). The PMFP is a rural communities that focuses on a variety of areas, including the range of services accessible to communities, the gaps in the delivery of technical assistance, and the disconnect between public policies and the financial and management capacity communities have.

EFC9 will continue to work with EFC2 in the coming year and we hope to establish our own PMFP program in the future.

Committees

Bay Area Pollution Prevention Group (BAPPG)

EFC9 regularly attended meetings of the Bay Area Pollution Prevention Group (BAPPG). BAPPG is a voluntary association of all Bay Area municipal wastewater treatment plants that discharge into the San Francisco Bay.

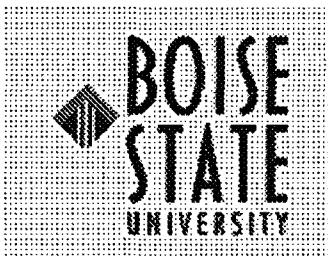
Bay Area Hazardous Waste Reduction Committee

EFC9 is a member of the Bay Area Hazardous Waste Reduction Committee and is a regular participant in committee meetings and events.

Western Regional Pollution Prevention Steering Committee

EFC9 is a member of the WRPPN steering committee, which helps determine the scope of the annual conference. In addition, WRPPN will use EFC9's Brominated Flame Retardant Clearinghouse and Green Business Clearinghouse pages on our website as the national hubs for those topics under the National Pollution Prevention Roundtable.





2003 Annual Report of the Environmental Finance Center Network

Region 10 - Boise State University

A key focus of the EFC at Boise State University is utility rate setting and capital improvement planning for environmental facilities

Introduction

The primary focus of the EFC at Boise State University (EFC10) is the development of broadly applicable, practical tools that improve the efficiency and effectiveness of environmental systems in meeting the challenges of protecting the environment and public health. The EFC creates computer-based techniques that provide important information for decision makers to use in financing environmental systems.

The Environmental Finance Center at Boise State University was created in 1995 and first received funding in the fall of 1996. The EFC at BSU is contained within the Department of Public Policy and Administration of the College of Social Science and Public Affairs. The EFC serves the Region 10 communities of the Pacific Northwest and the Intermountain states of Alaska, Idaho, Oregon and Washington. The EFC has also provided it specialized services and tools in other areas throughout the country. The mission of the EFC is to help communities with the "how to pay" issues of environmental protection. This report outlines the EFC's accomplishments in 2003, new initiatives for 2004, network collaborations, presentations and results.

Accomplishments

Focus on Watershed Financing Activities

The 2002 Annual Report of the Boise State University EFC (EFC10) introduced the division of activities between the focus areas of "macro-environmental" and "micro-environmental" finance. This division is useful in separating our traditional utility-based financing work from the emerging challenges of financing non-point pollution reduction at the watershed level. The 2003 Annual report highlights our activities in the watershed financing or "macro-environmental" arena.

Watershed Financing: the Macro-Environmental Finance Activities

Watershed restoration is important throughout the region. Watershed planning activities are increasing each year in response to the need to protect these valuable resources. In order for watershed planning and implementation to be effective, identification and acquisition of resources is necessary. Previous workshops conducted by the Center have helped to promote stewardship by improving stakeholders' capacity to develop long-term funding strategies for protection and restoration activities. However, different levels of sophistication exist between watershed groups. This difference in sophistication level creates challenges in the workshop to insure all participants receive valuable tools for their funding challenges. In response to this need, the Center tailored their workshops to levels that best addressed these different needs. The EFC presented 8 watershed funding workshops throughout Region 10 in 2003.

Watershed Funding Workshops – Oregon

EFC10 presented three workshops in Oregon during 2003. The EFC worked closely with the Oregon Watershed Enhancement Board and the EPA Region 10 to target attendees and coordinate the timing and location of workshops to maximize participation. Workshop locations included Eugene, Pendleton and the Klamath Basin. Each workshop was tailored to the specific needs of the watershed.

At each workshop, attendees received CD's with the Directory of Watershed Resources which included federal, private and state specific information on funding programs and *Plan2Fund*, an access based planning program.

Following the workshops there were several requests for further information and additional assistance. Participants have expressed interest in information on what other communities are doing to address the issues of funding watershed strategies. The Environmental Finance

Center will continue to be a conduit for sharing funding information and examples of funding strategies in Region 10.

Eugene: EFC10 delivered a workshop at the Oregon Water and Electric Board (OWEB) Office on May 22, 2003. The EFC worked with OWEB to advertise the Eugene Workshop through e-mail notices, web postings and newspaper and newsletter advertisements. Fifteen CD-ROMs were delivered to workshop participants with an additional five requested from those who could not attend.

Pendleton: The primary focus of the workshop was to promote financial planning on a watershed scale and to improve awareness of alternative funding techniques for stakeholders involved with watershed restoration activities for Total Maximum Daily Load (TMDL) implementation. EFC10 worked with the EPA and state of Oregon on determining the timing and selection of the workshop location based on TMDL schedules and watershed needs. Twenty-five people attended the workshop and each received CD's with funding information, planning tools and handout materials. Additional CDs were requested from both attendees and stakeholders who could not attend the workshop. A total of 35 CDs were distributed.

Klamath Basin: EFC10 presented an advanced workshop to address the unique and complicated issues present in the Klamath Basin. The Klamath Basin has been the scene of bitter battles over environmental and economic values, which were prominently expressed in the national media during the summer of 2002. The EFC worked with the Oregon Watershed Enhancement Board and the Klamath Watershed Council to identify key stakeholders and target participants. The EFC facilitated a discussion on coordinating watershed efforts of stakeholders in the basin and identify challenges and potential solutions.

Twenty-five people attended the workshop. The workshop resulted in a request from the group for additional follow-up research from the EFC on cost effectiveness of agricultural best management practices (BMPs). This request is expected to result in the development in 2004-5 of a new software tool to be cooperatively designed and tested by the EFC and professors in the Boise State University's College of Business and Economics—an excellent example of the multidisciplinary skills that reside in the EFCN's member universities.

Following the workshop, EFC10 conducted a research study to determine how a cost-benefit model could meet the needs of the watershed group. This study revealed a number of important points. First, there are many resources for information about economic incentives for agricultural best management practices. In addition to finding resources for information about Best Management Practices (BMPs) and cost-benefit analysis, we tried to determine whether there are any existing models that could be used by the watershed group. While we did find some useful examples, we did not find a model that would specifically address the water quality issues in the Klamath Basin. A third, related finding of our research is that there

To address this need, EFC10 facilitated a Charrette to coordinate the various program staff and identify how different programs can better work together to leverage resources and maximize benefits to watershed stakeholders. The EPA Region 10 Internal Coordination Charrette brought together 24 key EPA staff and provided a forum for frank discussions about funding processes and management challenges within Region 10 EPA. The Charrette provided a direct mechanism for ensuring meaningful, constructive and well directed two-way communication and allowed the group to identify solutions to funding integration dilemmas. The outcome of the charrette was a clear vision on the interests of the Region 10 staff and a commitment from program leads to utilize leveraging opportunities to protect and restore watersheds.

The Charrette resulted in a three-step plan for improving internal coordination at EPA Region 10. The plan included developing an integrated funding process, tracking funding data at a watershed level, and directing applicants to additional funding sources. Three tasks were identified during the Charrette to improve internal coordination at EPA Region 10:

1. Identify initial programs under EPA control for potential consolidation
2. Improve data tracking system to gather data at the watershed level.
3. Direct applicants to other sources of funding.

A second charrette to coordinate federal agencies is planned for fiscal year 2004 - 2005.

Directory of Watershed Resources

Communities across the country face a range of complex funding challenges as they attempt to meet the demands of environmental protection. The Environmental Finance Center at Boise State University (EFC10) has provided watershed funding workshops throughout Region 10 to assist local communities in finding creative funding solutions to support their own plans for environmental protection. As part of this effort, the EFC provides watershed stakeholders with the funding information they need to make decisions and protect their resource.

There is a tremendous volume of information available for funding watershed restoration. However, finding and sorting through this information can be a daunting task. In addition, demands for up to date information on financial resources and financing tools has increased. This is especially true for workshop participants who are oriented to the financial tools and sources and who need further information after the workshops are delivered.

In an effort to address this need, the EFC began creating an on-line, searchable database for watershed restoration funding in the fall of 2002. This database was completed in 2003 and has been a huge success, identifying nearly 730 programs within Region 10. The database includes information on funding programs available for federal, state (Oregon, Washington,

Idaho, and Alaska), private, and other funding sources. Users can query the information in a variety of ways including agency sponsor, keyword, or by a detailed search. At the end of a query, a brief description of each matching program will be displayed. When a specific program is selected, a detailed page of that program will be displayed and can be printed.

For this database to continue to be a resource for watershed stakeholders, the information must be kept accurate and up to date. The Center has continued to add and update programs in the database, adding nearly 150 programs in 2003. In addition, an email function was added to the directory, which will allow the EFC to send an annual email to each program contact with a link to their specific programs for review. This will provide additional verification with program contacts to ensure accuracy. Changes can be emailed or made on an online form on the website. The first email is planned for 2004.

Due to the lack of affordable Internet in many areas, the EFC developed the ability to create an up to date CD-ROM version of the Directory. These CD's are available free of charge upon request. In 2003 the EFC distributed approximately 1400 CDs at workshops, conferences and through email and phone requests.

In addition the Directory is available online. There were over 1,000 visits to the Directory in 2003, with approximately one hundred visitors to the site per month with the numbers growing as people become aware of the resource. In addition, several agencies have begun to link to the Directory website and are directing unfunded applicants to the EFC for assistance.

Region 4 Directory Project

The response to the Directory of Watershed Resources has been extremely positive and has generated a strong demand for this tool in other regions. In 2003 the EFC worked with the EFC in Region 4 to extend the function of the database for use in Region 4. EFC10 converted its on-line watershed financing database for the use of the Environmental Finance Center at University of North Carolina at Chapel Hill (EFC@UNC). This provided a framework for the database created for the EFC at University of North Carolina, reducing duplication and allowing for costs savings. This project is an excellent example of how the Environmental Finance Center Network allows the partner universities to efficiently leverage resources in serving the public in our separate EPA Regions.

Plan2Fund™

The Boise State EFC's (EFC10) field work proved that many watershed groups struggle with the task of moving from the actual watershed plan to locating funding sources. Attendees at our workshops often want to know what sources of funding are available; however, they have

not identified watershed restoration priorities or established time frames for activities. Without a clear funding strategy, they are overwhelmed with the implementation process. Participants have expressed an interest in information on funding capacity and operating costs as well as tools to assist them in the financial planning process. During 2003, the EFC responded to these requests by developing new tools to meet their needs and help them move from the planning process to developing a funding strategy for implementation. The result of this effort was *Plan2Fund*, a watershed strategic planning and funding tool that helps organizations determine their funding needs to meet the goals and objectives of their watershed restoration program plan.

Plan2Fund[™] was developed in Microsoft Access and is a database model that walks users through the process of estimating the costs of their Watershed Program Plan's Goals and Objectives, assessing any local matches, and determining funding needs to meet Goals and Objectives. The results from *Plan2Fund*[™] can be used to search for funding sources utilizing the Environmental Finance Center's internet-based Directory of Watershed Resources. Several hundred copies of *Plan2Fund* have been distributed free of charge to conference attendees and workshop participants. In addition, over 140 people have downloaded *Plan2Fund* from the EFC's website at <http://sspa.boisestate.edu/efc>. EFC10 will continue to identify ways to enhance *Plan2Fund* in the future.

Source Water Protection

In 2001, the Boise State EFC began collaborating with the EFCs at the Universities of New Mexico, North Carolina, Syracuse and Maryland on a project related to source water protection project funded by EPA. The EFC focused its efforts on two projects. The first focuses on facilitating water source protection financial planning in Blaine County, Idaho involving federal, state and private land ownership and shallow groundwater. During 2003 the group developed a draft drinking water protection plan for Blaine County. The EFC drafted the education and outreach portion of the plan and has developed a matrix of potential funding sources for implementation. To date, Blaine County has invested \$32,000 for drinking water protection activities including additional monitoring, nitrogen studies and education activities. The group hopes to leverage the counties contributions in order to increase protection activities in the future. The EFC will continue working with the committee to finalize the drinking water protection plan and implementation strategy.

The second project is located in the cities of Sweet Home, Lebanon and Albany in Oregon. This project involves federal, state and private land, TMDL and ESA compliance issues and surface water use for drinking water source protection. In 2003, the EFC assisted in drafting a Drinking Water Protection Plan for the three communities. The EFC will continue to assist in finalizing the plan and in developing an implementation strategy.

The ultimate goal of the two projects is to use the results of the stakeholder processes to inform policy makers about the challenges that small communities face in meeting source water protection planning objectives, such as fostering stakeholder participation and cooperation, gaining consensus on need for voluntary and programmatic efforts necessary to protect water sources, and developing financial resources for plan implementation.

Idaho Source Water Protection Collaboration Group

Through the work of EFC10 on the source water protection pilot demonstration project in Idaho, the EFC has initiated a number of discussions between various federal, state and local organizations. The result has been the creation of an informal group in Idaho that meets to share information on source water protection issues and efforts. This Source Water Protection Coordination Group consists of Idaho DEQ, EPA Region X, Idaho Rural Water Association, Idaho Association of Soil Conservation Districts, University of Idaho Cooperative Extension, Idaho Department of Water Resources, Idaho Water Resource Research Institute, Association of Idaho Cities, and the Idaho Association of Counties among others. The group continues to meet regularly to discuss protection efforts and potential collaborations within Idaho.

Meetings / Conferences / Presentations and Technical Assistance

As EFC10 delivers watershed-funding workshops in the region, the demand for information on funding resources and financing tools has increased. Participants often pass information on the other stakeholders who contact the EFC for additional information and assistance. In addition, EFC10 is often contacted by agencies and organizations that would like us to participate in conferences, meeting and various watershed events. In order to continually provide services to those needing assistance throughout Region 10, it is necessary to plan for these unanticipated activities. The following are a few of the activities for which EFC10 provided assistance.

EPA Source Water Protection Annual Conference June 2 - 4, 2003

The EFC participated in the EPA's annual Source Water Protection Conference in 2003. The conference brought together various Federal, Tribal, State, and local officials; watershed managers; conservation partners; citizens and others to learn about effective actions that prevent contamination of drinking water sources. The Center, along with other EFC's presented a technical assistance training short course on funding options for watershed protection. The EFCN was also part of the plenary session "Financing the Journey to Protection" and staffed a table at the Resource Fair portion of the conference. The Directory of Watershed Resources was available online for display and information on the EFC and the

services and tools the Center provides was available. In addition, the EFC Unified Source Water Protection Pilot Project in Blaine County Idaho was also highlighted at the conference.

Vietnam PSU Presentation

At the invitation of EFAB Member Langdon Marsh, EFC10 participated in a pilot project to assist the City of Ho Chi Minh in devising new strategies and methods for working collaboratively with the community, citizens, environmental groups and business leaders to leverage community pressure and market forces to meet environmental challenges. Population and urbanization have placed tremendous pressure on drainage and sewerage systems in Ho Chi Minh City. The city's many canals and waterways have become dumping sites for solid waste, and domestic and household wastes, which pose significant health risks to the local population.

The EFC was asked to speak to the Vietnam delegation on financing strategies for environmental protection as part of a pilot project to provide technical support, information and other resources that will establish a process for voluntary community participation in canal restoration. Fifteen (15) people attended the presentation. In addition to the Vietnam delegation, the Portland Environmental Services, Johnson Creek Watershed Council and the Oregon Economic and Community Development Department also attended. The message of multiple funding sources to meet the demands of the city was well received. The EFC also provided the delegation with the tools and resources the EFC has developed for Region 10 to assist with similar challenges.

Watershed Initiative Conference

The EFC participated in the Watershed Initiative Conference presented by Portland State University and the EPA for recipients of the Watershed Initiative grant program. The purpose of the conference was to transfer information about innovative technical tools available for watershed restoration, protection and management, and where to get more information at the federal, state, tribal and local levels. The EFC presented a condensed workshop and provided recipients with *Plan2Fund* and Directory of Watershed Resources CDs. The response to the tools was very positive and the group expressed a need to expand the Directory to other regions.

WSU Satellite Broadcast "Funding for Watershed Restoration"

EFC10 participated in the "Funding for Watershed Restoration" satellite program presented by Washington State University. The two-hour program was broadcast via satellite and Internet on November 18th, 2003. The EFC presented information on financing watershed restoration using a case study and walking viewers through the planning process using

Plan2Fund and the Directory of Watershed Resources. The format of the broadcast allowed for questions from the remote audiences through phone lines, fax, and e-mail. In addition, a chat line was established where the EFC continues to answer questions posted to the website concerning financing watershed restoration.

The satellite was broadcast to over 37 Counties in Idaho Washington and Oregon. Over nearly 980 CD's were distributed to attendees containing the Directory and *Plan2Fund*. In addition, the broadcast continues to be available and viewed online.

Funders Fair

Congressman Michael Simpson (ID) requested the EFC's participation in two funding fairs offered in Albion and Idaho Falls, Idaho. The fairs targeted rural stakeholders in Southeast and South central Idaho facing financing challenges in infrastructure, agriculture and natural resources, small business and art and historical fields of interest. At the fair, EFC10 was able to present valuable information and resources to participants. In addition the EFC hosted a display booth at each fair and provided CD's and information with other agencies and participants. As a result of the fair, several participants requested additional assistance including Representative Simpson's new grants assistance staff.

Coastal America Program

EFC10 is working with the regional Coastal America coordinating team to develop greater use of the Coastal America program in the northwest. The EFC will continue to assist Coastal America in identifying opportunities for public private partnerships in Region 10.

Other Conferences

- The EFC participated in the Brownfields Conference held in Portland, Oregon in October 2003. The EFC helped staff an EFC Network (EFCN) table and provided information on the tools and resources available at EFC10. The EFC expanded their database to contain Brownfield funding information and over 50 CD ROMs of the Guidebook of Financial Tools, *Plan2Fund* and the Directory of Watershed Resources were distributed at the conference. In addition, EFC10 was able to gather information on additional private funding sources at the conference to add to the database.
- EFC10 was asked to make a presentation at the Office of Water Regional EPA Office of Water Regional Directors meeting with EPA Assistant Administrator Tracy Mehan in Seattle during 2003. The EFC received very positive feedback on its tools and resources and the presentation initiated discussions of potential opportunities to extend these resources to other regions and expanded applications.

- EFC10 provided assistance, resources and CDs to additional conferences including the EPA Tribal Conference in Coeur d'Alene Idaho, distributing 25 CDs and the TMDL conference in Stevenson Washington in October 2003 where 100 CDs were distributed to attendees. The EFC is committed to continue assisting and providing resources within Region 10.

Watershed Funding Customer Service Assistance

In 2002, the Center established a toll free telephone number for watershed stakeholders to call if they needed one-on-one technical service assistance when searching for watershed funding within Region 10. The service was continued in 2003 to provide assistance in searching the Directory of Watershed Resources as well as provide additional information on financing tools, resources, contact information, and other resources. Through phone and e-mail requests, an additional 150 Directory of Watershed Resources and *Plan2Fund* CDs have been sent in 2003. The Center plans to continue this service for Region 10 in the future.

EFC Information Activities - Website

The activities of EFC10 are profiled at the Center's Intranet website [<http://sspa.boisestate.edu/efc>]. This allows EFC10 to provide information on our programs and projects without incurring the expenses of publishing a newsletter or other periodical. Information such as *The Watershed News* newsletter, various PowerPoint presentations, *Plan2Fund* program download and new publications were added to the website during 2003. The EFC remains committed to keeping their website current and up to date.

Newsletter Task 3: Watershed E-Newsletter

During 2003 the Center released the first issue of *The Watershed News*, a quarterly newsletter for watershed stakeholders within Region 10. *The Watershed News* is designed to provide watershed stakeholders with information and resources to assist in finding innovative ways to pay for watershed protection. The newsletter focuses on funding issues within the region and contains information on upcoming events, success stories, up-coming grant proposals, specific resources and agency programs. The newsletter was sent to over 400 recipients. The group was devised of past workshop attendees, watershed groups, various EFC contacts, and local governments. The newsletter is also available on the EFC's website. The response from the first issue has been very positive. Several have commented that they have forwarded the newsletter to other recipients. The EFC will continue to provide the newsletter on a quarterly basis.

New Initiatives For 2004

EFC10 will pursue several new initiatives in 2004 in the policy areas of safe drinking water, watershed protection and air pollution.

Watershed Funding Workshops

The EFC has 10 workshops scheduled for 2004 in Idaho, Oregon, Washington and Alaska. The workshops will be presented in basic, intermediate and advanced formats and tailored to the specific needs of the watershed. The EFC will work with the EPA Region 10 and the States in planning these workshops. The EFC will provide ongoing support to watershed groups in implementing long-term funding strategies.

Directory of Watershed Resources

The EFC will continue to update and expand the Directory of Watershed Resources. In addition, the EFC is discussing potential collaborations with the EFC Network to extend the database to other regions. See following section on **Network Collaborations** for details.

Washington State Resource Fair

The Center will participate in an open house of watershed resource providers, presented by the Washington Department of Ecology. The event will be an informational session that gives watershed groups, local governments, nonprofit agencies and other watershed stakeholders a chance to meet and talk first hand with resource providers. The Center will staff an information booth, provide handout materials and discuss funding tools and information with attendees including *Plan2Fund*, the Directory of Watershed Resources, the Guidebook of Financial tools and other information. The open house will allow the Center to share our resources and expertise with several watershed stakeholders in Washington.

Utility Financing: the Micro-Environmental Finance Activities

Until 2000 the activities of the EFC revolved around water and waste-water utility finance. Our utility finance work forms the core of our "micro-environmental" finance activities. In 2003 the EFC unveiled its new water system rate setting model, RateCheckup. In addition, our asset inventory and financial planning model – CAPFinance – gained broader national acceptance by utility finance professional. An additional tool development effort involving handheld computer technology – the personal digital assistant (PDA) – has shown tremendous potential for improving information collection about the nation's public drinking water

systems. PDA-based information management systems are expected to improve the productivity of environmental protection programs that rely upon the timely collection of inspection data about regulated entities.

RateCheckup™

In 2002 the EFC saw a need to replace RateMod Pro as its primary water rate setting tool due to the inability of integrating it with modern computer operating system language and technologies. The EFC conceptualized RateCheckup as a replacement to meet the challenges of new technologies and provide a user-friendly tool for rate setting. In 2003 RateCheckup™ went from a conceptual idea to a Microsoft Excel based program for use by small and medium water systems as a primer for setting rates. The new model will enable the EFC to reach a maximum number of water systems and provide better training on rate setting to those systems.

When software tools are developed at the EFC we seek to build upon our established products to both leverage previous research and development as well as to maximize functional integration between tools. The foundation of the RateCheckup software was a long-range budget planning tool developed for the Washington Public Works Board to assess the financial capacity of Drinking Water State Revolving Fund applicants. In addition, the EFC's water conservation cost-benefit model (a decision making tool developed by the Center and co-funded by the Washington Department of Health's Drinking Water Program) was incorporated into the new rate setting tool to meet the needs of water systems pricing water during drought conditions – a chronic problem in some intermountain west communities. In addition, the rate model utilizes the capital infrastructure renewal and replacement calculations derived from CAPFinance™ in helping water utility systems determine its need for money.

A primary goal for developing RateCheckup was to ensure that the EFC could build a tool that incorporated all of the necessary components of full cost pricing of water service while keeping in mind that it needed to be user-friendly and simple to use. To ensure acceptance and familiarity Microsoft Excel was chosen as the software platform for RateCheckup because of its broad availability and ease of use. RateCheckup utilizes wizards and command buttons to create a user-friendly environment.

In October of 2003 RateCheckup was released for beta testing to a peer review group selected by the EFC. As we look ahead to finalizing the software the EFC will incorporate comments or enhancements that surface based on the RateCheckup Beta to ensure that the software meets the needs of communities. After completion of the software the EFC will begin using the tool in a class setting to illustrate how RateCheckup can be used for utility rate setting and planning.

Air Pollution Issues

In 2004, EFC10 will be working with the Community Planning Association of the Treasure Valley in Idaho (COMPASS) on air pollution issues in the Boise area. Specifically, EFC10 will be working with COMPASS on the idea of implementing a voluntary cap on ozone and PM2.5 emissions as a way to meeting future air pollution limits. EFC10 will be addressing the finance considerations of implementing incentives for businesses, development, and individuals who are interested in taking voluntary actions to reduce air pollution levels in the valley.

Personal Digital Assistant (PDA) Sanitary Survey

As part of an ongoing effort to deliver safe drinking water to communities the EFC has continued its involvement in the use of hand held technology for sanitary survey inspections. The EFC worked with the Idaho Department of Environmental Quality to deliver the first sanitary survey that could be conducted utilizing Pocket PC technology. Hand held computer technology offers significant potential for improving inspector productivity, acquiring accurate and complete information about the nation's public water systems, improved management use of inspection information, and effective monitoring and correction of sanitary defects of water systems.

Although the first iteration needed further enhancement to meet the growing needs of inspectors and offer greater flexibility, the software became the baseline for what has become a national version. Through the combined work of the US Environmental Protection Agency Drinking Water Academy and the EFC, efforts have been made to expand upon the Electronic Sanitary Survey created for Idaho.

In February of 2003 the Drinking Water Academy put together a team of individuals with experience in sanitary survey training, programming, laws and regulation, as well as drinking water program officials of the states in Region I of the EPA. Through the efforts of this group, a review process of Idaho electronic sanitary survey was conducted to identify what components could be used and to identify any additional components that would be needed for a national model. Through additional collaboration between the Drinking Water Academy, Northbridge Environmental Consultants in Boston, and the Environmental Finance Center, work commenced on developing a national Electronic Sanitary Survey that could be adopted by all states.

The software has been developed in Visual Basic.Net taking advantage of the Visual Studio development environment created by Microsoft®. This technology had been married with Microsoft Access® to control the flow, setup, and storage of data. Through the use of

eXtensible Markup Language (XML) the new software greatly enhances the ability to tailor the inspection to fit the system being inspected

During the development process Region I state officials worked with developers to beta test and offer additional comments on needed functionality. Once the software neared completion a national roll out was undertaken and training began in additional regions around the country. By the end of 2003 a complete training series was developed and training began with Region 8 in Denver, Colorado.

CAPFinance Asset Inventory Financial Planning Tool

In 2003 two states adopted CAPFinance as an integral part of their capacity-building efforts for small water and waste-water utilities. CAPFinance helps utilities identify the long-range financing requirements associated with maintaining capital facilities necessary for the provision of safe drinking water and reliable waste-water services. In Region 7, the Kansas Department of Health and Environment's Drinking Water Program purchased a state-wide license to distribute CAPFinance to public water systems as part of the state's drinking water capacity development program. Alaska's Department of Community and Economic Development purchased a similar distribution license to provide CAPFinance to small communities through its Rural Utilities Business Assistance Program.

EFC's Financial Capacity Analysis Activities

Since 1997 the EFC has provided the function of financial capacity review to the State of Idaho's Drinking Water State Revolving Fund Program (DWSRF). In 2001 the State of Alaska's Revolving Fund Programs enlisted the EFC to provide similar financial capacity reviews for loan applicants. While these activities have been reported in previous Annual Reports, in 2003 the EFC unveiled its first report on the financial capacity characteristics of applicants to the Idaho Drinking Water State Revolving Fund.

This report, *Financial Capacity Assessment Indicators: Idaho DWSRF*, is posted on the EFC's web site and provides groundbreaking information about the financial capacity characteristics of applicants to the DWSRF. This report has led to the creation of the "Idaho Index," a set of comparative indicators of management and financial capacity. The EFC will continue to compile this information as capacity reviews are performed. The first report on Alaska's financial capacity indicators is expected in 2004.

It is expected that the EFC will provide similar third party financial capacity reviews for the Washington Department of Ecology's Clean Water SRF program, and the State of Iowa's Drinking Water Protection Program's SRF (for small private water systems) beginning in 2004.

Arsenic Exemption Financial Capacity Reviews

In 2003 the Region 10 EPA solicited the assistance of the EFC in implementing a financial capacity review program in Idaho. This program was designed to provide qualifying water systems an extended implementation schedule to meet the requirements of the arsenic contamination rule as it applies to public drinking water systems. EPA Region 10 undertook this optional authority to provide exemptions at the request of the Idaho Drinking Water Program. The State of Idaho is expected to assume responsibility for this program in 2005.

In conducting its reviews, the EFC applied a capacity review methodology that was pioneered in the process of reviewing DWSRF and Clean Water SRF loan applications. We believe that this is the first time that the option to apply a financial test in order to provide relief from implementation deadlines has been used in relation to the Safe Drinking Water Act.

Developing New Computer-Based Tools

EFC10 will be developing additional computer based tools this next year. Foremost among these is "AGBMP\$," a tool for calculating the cost-benefit of implementing agricultural best management practices to improve water quality at the least cost in impaired watersheds. This tool was envisioned through a watershed financing charrette conducted by the EFC10 for the Klamath Basin Watershed Council in Oregon. This tool will help watershed groups communicate effectively with agricultural land users on the financial benefits of instituting runoff controls to benefit water quality.

Network Collaborations

- Source Water Protection. The EFC is collaborating with the EFCs at the universities of New Mexico, North Carolina, Syracuse and Maryland on the source water protection project with EPA.
- Watershed Protection. The EFC will continue to collaborate with the EFC at the University of Maryland on watershed protection and watershed funding efforts.
- Directory of Watershed Resources. In 2004 the EFC10 at Boise State University will be working with EFC1 at the University of Southern Maine to replicate and establish the Database of Watershed Resources in the New England States. This Database was designed by the EFC10 and has excellent potential to be used as a national model. EPA's Sustainable Watersheds Financing Team will be funding the project. In addition, the EFC10's watershed financial planning software model – *Plan2Fund* – is being retooled for national distribution through the EFCN by participating EFCs.

Plan2Fund will be converted to a "run-time" version of Microsoft Access to be used by watershed groups across the country.

- Conferences and Meetings. The EFC will continue to collaborate with the Network to provide information and presentations at conferences.

Region 1 Environmental Finance Center

EFC at University of Southern Maine
Edmund S. Muskie School of Public Service
49 Exeter Street
Portland, Maine 04104-9300

EFC DIRECTOR Dr. Richard Barringer
barringr@usm.maine.edu
(207) 780-4418
Fax (207) 780-4317

REGIONAL CONTACT Diane Gould
gould.diane@epa.gov
(617) 918-1569

US EPA - Region 1
1 Congress Street, Suite 1100
Boston, MA -2114-2023

PROJECTS DIRECTOR Dr. Samuel B. Merrill
smerrill@usm.maine.edu
(207) 228-8596
Fax (207) 780-4317

EPA
HEADQUARTERS LEAD Alecia Crichow
crichlow.alecia@epa.gov
(202) 564-5188
Fax (202) 565-2587

Region 2 Environmental Finance Center

EFC at Syracuse University
Maxwell School of Citizenship and Public Affairs
504 Maxwell Hall
Syracuse, New York 13244-1090

EFC DIRECTOR Kimberly J. Farrell
farrell@maxwell.syr.edu
(315) 443-9438
Fax (315) 443-5330

REGIONAL CONTACT Elizabeth VanRabenswaay
Elizabeth VanRabenswaay/R2/USEPA/US
(212) 637-3881
Fax (212) 637-3891

PROGRAM MANAGER Kevin Jacobson
kmjacobs@maxwell.syr.edu
(315) 443-4881
Fax (315) 443-5330

US EPA - Region 2
290 Broadway
New York, NY 10007-1866

ASSISTANT DIRECTOR OF PMFP Amy Santos
ascicar@maxwell.syr.edu
(315) 443-1979

EPA
HEADQUARTERS LEAD Vera Hannigan
hannigan.vera@epa.gov
(202) 564-5001
Fax (202) 565-2587

ADMINISTRATIVE ASSISTANT Mary Ellen Gilbert
magilber@maxwell.syr.edu

Region 3 Environmental Finance Center

EFC at University of Maryland
Institute for Governmental Service
4511 Knox Road #205
College Park, Maryland 20740

EFC DIRECTOR

Dan Nees
dannees@earthlink.net
(301) 403-4610
cell (301) 466-3394
Fax (301) 403-4222

REGIONAL CONTACT

Mindy Lemoine
lemoine.mindy@epa.gov
(215) 814-2736
Fax (215) 814-2201

ASSISTANT COORDINATOR

Michelle O'Herron
oherron@mdsg.umd.edu
(301) 403-4220 x26
Fax (301) 403-4255

US EPA - Region 3
Mail Code 3CB00
1650 Arch Street
Philadelphia, PA 19103-2029

FIELD OPERATIONS

Jean Holloway
(410) 632-1853
Jsh1252@ezy.net

EPA**HEADQUARTERS LEAD**

Vera Hannigan
hannigan.vera@epa.gov
(202) 564-5001
Fax (202) 565-2587

Region 4 Environmental Finance Center

EFC at University of North Carolina
Institute of Government
CB# 3330 Knapp Building
Chapel Hill, NC 27599-3330

EFC DIRECTOR

Jeff Hughes
jhughes@unc.edu
Phone: (919) 843-4956
Fax: (919) 962-2765

REGIONAL CONTACT

Maryjo Bragan
bragan.maryjo@epa.gov
(404) 562-8323
Fax (404) 562-8269

EFC ADVISORS

Prof. Richard Whisnant
Associate Prof. UNC School of Government
richard_whisnant@unc.edu
(919) 962-9320
Fax (919) 843-2528

US EPA - Region 4
61 Forsythe Street, SW
Atlanta, GA 30303-8960

Leslie Stewart
Associate Dir. UNC Office of Econ. Dev.
leslie_stewart@unc.edu
Phone: (919) 962-8871
Fax: (919) 962-8202

EPA**HEADQUARTERS LEAD**

Timothy McProuty
mcprouty.timothy@epa.gov
(202) 564-4996
Fax (202) 565-2587

Region 4 Environmental Finance Center

EFC at University of Louisville
426 W. Bloom Street
University of Louisville
Louisville, Kentucky 40208

EFC DIRECTOR Peter Meyer, Ph.D
Pbmeyer@louisville.edu
Phone: (502) 852-8032
Fax: (502) 852-4558

REGIONAL CONTACT Maryjo Bragan
bragan.maryjo@epa.gov
(404) 562-8323
Fax (404) 562-8269

PROJECT MANAGER Russell Barnett
r.barnett@louisville.edu
202 Patterson Hall
Phone: (502) 852-1851
Fax: (502) 852-4677

US EPA - Region 4
61 Forsythe Street, SW
Atlanta, GA 30303-8960

EPA
HEADQUARTERS LEAD Vera Hannigan
hannigan.vera@epa.gov
(202) 564-5001
Fax (202) 565-2587

Region 5 Great Lakes Environmental Finance Center

EFC at Cleveland State University
Maxine Goodman Levin College of Urban Affairs
1717 Euclid Avenue, Suite 120
Cleveland, OH 44115

EFC DIRECTOR Kevin O'Brien
kobrien6@adelphia.net
Phone: (216) 687-2188
Fax: (216) 687-9291

REGIONAL CONTACT Lyn Luttner
U.S. EPA - Region 5
Cleveland Office - Mail Code ME-W
25089 Center Ridge Road
Westlake, OH 44145
(440) 250-1711
fax (440) 250-1750

SECRETARY Vivian Tucker
vivian@urban.csuohio.edu
Phone: (216) 687-4739
Fax: (216) 687-9291

EPA
HEADQUARTERS LEAD Timothy McProuty
mcprouty.timothy@epa.gov
(202) 564-4996
Fax (202) 565-2587

Region 6 Environmental Finance Center

EFC at New Mexico Institute of Mining and Technology
The Institute for Engineering Research and Applications (IERA)
901 University Boulevard
Albuquerque, NM 87106-4339

EFC DIRECTOR Heather Himmelberger
heatherh@iera.nmt.edu
(505) 272-7357
Fax (505) 272-7203

REGIONAL CONTACT Freda Wash
wash.freda@epa.gov
(214) 665-8342
Fax (214) 665-6490

PROGRAM MANAGER Susan Butler
butler@iera.nmt.edu
(505) 272-7356
Fax (505) 272-7203

US EPA - Region 6
Mail Code - 6WQ-AT
1445 Ross Avenue
Dallas, TX 75202-2733

Program Coordinator Cynthia Hernandez
chernandez@iera.nmt.edu
(505) 272-7280
Fax (505) 272-7203

EPA
HEADQUARTERS LEAD Alecia Crichlow
crichlow.alecia@epa.gov
(202) 564-5188
Fax (202) 565-2587

Region 9 Environmental Finance Center

EFC at California State University, Hayward
Environmental Finance Center
Building 7, Alameda Point
851 West Midway Avenue
Alameda, CA 94501

EFC DIRECTOR Sarah Diefendorf
sdief@aol.com
(510) 749-6867
Fax (510) 749-6862

REGIONAL CONTACT Anna Hackenbracht
hackenbracht.anna@epa.gov
(415) 744-1634
Fax (415) 744-1917

ASSOCIATE DIRECTOR Susan Blachman
(510) 749-6867
Fax (510) 749-6862

US EPA - Region 9
Mail Code SPE-1
75 Hawthorne Street
San Francisco, CA 94105

EPA
HEADQUARTERS LEAD Vanessa Bowie
bowie.vanessa@epa.gov
(202) 564-5186
Fax (202) 565-2587

Region 10 Environmental Finance Center

EFC at Boise State University
1910 University Drive
Boise, ID 83725

EFC DIRECTOR

Bill Jarocki
bjarock@boisestate.edu
(208) 426-4293
Fax (208) 426-3967

REGIONAL CONTACT William Chamberlain
chamberlain.william@epa.gov
(206) 553-8515

ASSOCIATE

C. Gary Carroll, PE
gcarroll@boisestate.edu
(208) 426-2460

US EPA - Region 10
1200 Sixth Avenue
Seattle, WA 98101

EPA

HEADQUARTERS LEAD

Alecia Crichlow
crichlow.alecia@epa.gov
(202) 564-5188
Fax (202) 565-2587

ADMINISTRATIVE ASSISTANT

Lynda Robinson
lironinso@boisestate.edu
(208) 426-1567
Fax (208) 426-3967

- EFC Network contact list of August 3, 2004, vh

