



**U.S. ENVIRONMENTAL PROTECTION AGENCY**  
**Environmental Finance Program**  
**FY 2014 ACCOMPLISHMENTS**

OFFICE OF THE CHIEF FINANCIAL OFFICER  
CENTER FOR ENVIRONMENTAL FINANCE

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## INTRODUCTION

This report summarizes the work and accomplishments of EPA's Environmental Finance Program. The two main components of the program are the Environmental Financial Advisory Board (EFAB) and the agency-supported Environmental Finance Centers (EFCs). Both the EFAB and the EFCs provide unique services to the nation, helping find ways to pay for sustainable environmental programs and promote responsible stewardship. Together, these initiatives seek to lower costs, increase investments, and build the capacity of public and private parties to support environmental needs.

The **EFAB** is an independent advisory committee established to recommend ways that EPA can address the growing environmental financing challenges facing the nation. First chartered in 1989 and operating under the authority of the Federal Advisory Committee Act (FACA), the EFAB reports to the EPA Administrator and program offices on environmental finance issues, options, proposals, innovations, and trends. The Board is comprised of approximately 30 members appointed by the agency's Deputy Administrator. The membership represents diverse points of view from those in state and local governments; the banking and finance communities; business and industry; and non-profit organizations. The Board provides policy and technical advice on a wide range of financial issues, with a particular focus on supporting the EPA's strategic goals and cross-cutting fundamental strategies, as outlined in its Strategic Plan.

Environmental goals cannot be met without financing, which is essential to implementing state and local programs. However, knowledge about how to fund environmental programs is often limited, especially at the local level. As a result, there is a need to educate public officials on the front lines of financial environmental facilities and services about options and tools available to help them meet their requirements and ensure a healthy environment for the people in their communities.

The **EFCs** are nine university-based organizations that provide innovative solutions to communities to help manage the cost of environmental protection. The EFCs provide state and local officials and small businesses with advisory services; education, publications, and training; technical assistance; and analyses on financing alternatives. EFCs pursue various avenues of education and training such as offering short courses on environmental finance for state and local officials as well as graduate-level educational courses through regular university curricula. In addition, the EFCs develop and publish case studies about financing techniques and serve as clearinghouses for regional and state information on environmental financing and program management. Other activities include providing outreach services by developing tools, training courses, delivering lectures, or otherwise educating communities and relevant stakeholders about financing issues. The EFCs have proven to be effective vehicles for promoting innovative environmental financing techniques for states and localities.

In addition to the EPA support, all of the EFCs attract additional funds through grants and contracts with other public and private clients. During FY 2014, centers in the network operated 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)
- Wichita State University (Region 7)
- Dominican University of California (Region 9)
- Boise State University (Region 10)

The EFAB and the EFCs provide financial experience and expertise outside of the Agency's core competency of developing and implementing environmental programs. These programs also complement each other – the EFCs share with the EFAB their real-world experience and the EFAB members may also make their professional experience available to assist the EFCs in their work.

## **ENVIRONMENTAL FINANCIAL ADVISORY BOARD HIGHLIGHTS**

The EFAB's charter was approved by the Deputy Administrator for another two-year term on March 7, 2014. The charter renewal is in accordance with the provisions of the Federal Advisory Committee Act (FACA), 5 U.S.C. App.2 and relevant Agency policies. The EFAB is in the public interest and supports EPA in performing its duties and responsibilities. Some of the major objectives of the EFAB are to provide policy advice and recommendations for:

- Reducing the cost of financing sustainable environmental facilities, discouraging polluting behavior, and encouraging stewardship of natural resources;
- Identifying approaches specifically targeted to small community financing;
- Creating incentives to increase private investment in the provision of environmental services and removing or reducing constraints on private involvement imposed by current regulations;
- Removing barriers and increasing opportunities for the U.S. financial services and environmental goods and services industries in other nations; and,
- Developing new and innovative environmental financing approaches and supporting and encouraging the use of cost-effective existing approaches.

The Center for Environmental Finance (CEF) implemented a process to recruit EFAB members in an effort to create a FACA committee that reflects a rich diversity of talent, expertise, experience, and points of view necessary to provide balanced environmental finance advice to the Administrator. This process involved frequent interaction with the agency's senior officials, including the Office of General Counsel, Office of the Administrator and Office of Diversity and Advisory Committee Management and Outreach. Along with the traditional outreach recruiting efforts such as the Federal Register notification and recommendations from past and present board members, CEF solicited recruitment on multiple Listservs, social media, targeted minority and women organizations, and public interest groups. This effort resulted in the largest pool of qualified candidates in the history of the Board.

The EFAB held two successful public meetings on December 12-13, 2013 and May 13-14, 2014. The purpose of the meetings were to hear from informed speakers on environmental finance issues, proposed legislation, and EPA priorities; to discuss activities, progress, and preliminary recommendations with regard to current EFAB work projects; and to consider requests for assistance from EPA offices.

Through these public meetings, EFAB developed independent reports on financing environmental programs and activities. They issued reports making recommendations concerning programs and activities managed by EPA's Office of Water, Office of Policy, and the Region 1 office.

## COMPLETED PROJECTS

***Municipal Energy Efficiency and Greenhouse Gas Emissions Reduction: Financing and Implementing Energy Efficiency Retrofits in City-Owned Facilities (January 2014):*** At the request of the EPA Region 1 office, the Board produced a report that would help smaller communities understand the benefits of processes to develop and methods of financing energy efficiency projects. The Board reviewed a vast amount of existing information and distilled it down to a useable educational piece that will help communities, particularly those without dedicated energy staff, decide whether and how to move forward on efficiency measures.

***Utilizing SRF Funding for Green Infrastructure Projects (January 2014):*** The report analyzes and explores the potential of the Clean Water State Revolving Fund (CWSRF) to provide credit guarantees to green infrastructure projects within current program eligibilities and resources. This opportunity could be especially attractive for the large state CWSRF programs and/or for states that leverage their CWSRF programs. The findings in the report indicate that some CWSRF programs have reached a point where they may have the capacity to expand funding for green infrastructure projects by offering credit guarantees at the same triple-A ratings enjoyed by most CWSRF loan programs. The report also discusses other program strengths that could more than double these capacity estimates. The report makes recommendations on the process needed to realize these potential program benefits. At the request of the EPA's Office of Water and the White

House's Council on Environmental Quality, the EFAB also produced a three-page summary of the larger technical report.

***Transit-Oriented Development for Sustainable Communities (July 2014):*** The EFAB was charged with developing information regarding financing tools and strategies that could be applied to transit-oriented development (TOD) for sustainable communities. The Board hosted a workshop on transit-oriented development and a roundtable on environmental infrastructure investment. These meetings brought together many government, industry, and finance experts with real-world experience in financing and implementing development projects. The EFAB prepared a report to the agency suggesting that public-private partnerships (P3s) provide access to alternative forms of financing that would enable TOD project directors to more easily harness private developers' expertise, industry innovation, and accelerate the timetable of meeting economic development goals. The Board also recommended that the EPA identify means to improve the P3 process, especially as it related to TOD, to further the environmental and economic development benefits.

***Review of EPA's Draft Financial Capability Assessment Framework (September 2014):*** The EFAB was asked to review the draft of the revised *Financial Capability Assessment Framework* by the Office of Water to ensure that the document identifies appropriate examples of additional information that communities could provide to supplement the findings of EPA's two-part assessment process identified in the *Combined Sewer Overflows: Guidance for Financial Capability Assessment and Schedule Development* report of 1997. The Board evaluated the existing framework and recommended the inclusion of 10 additional metrics, in conjunction with the existing metrics, for consideration in the financial analysis. The EFAB also recommends that the following qualitative factors also be considered in the framework: (1) extraordinary considerations, (2) additional system priorities and environmental/regulatory matters and (3) small system considerations.

## **ENVIRONMENTAL FINANCE CENTERS HIGHLIGHTS**

The financial outreach services provided by the EFCs help the regulated communities to meet environmental needs by identifying ways of cutting, lowering and shifting costs, and increasing investments in environmental systems. These accomplishments, to date, have made an important contribution to environmental progress, but much still needs to be done and their work remains an ongoing process.

### **UNIVERSITY OF SOUTHERN MAINE**

- Provided assistance to sustainable communities grantees through resource development, one-on-one assistance, national webinars, and in-person events on topics such as implementing and financing green infrastructure; auditing development codes for barriers to low impact development; integrating water infrastructure investments and planning into local and regional sustainability planning; conducting asset management for water



resources; linking water resources and economic development in rural places; revitalizing brownfields; building resiliency to hazards; and, connecting livability planning to combined sewer overflow remediation efforts.

- Undertook efforts to pursue new separate funded projects assisting state agencies and the EPA Region 1 with needs including fiscal analysis of alternative development patterns, healthy communities and food waste and small water systems finance and management.
- Completed a report on the economics and finance of Maine's water resources and infrastructure in collaboration with *The Nature Conservancy* with support from the Doris Duke Charitable and Elmina B. Sewall Foundations, with a focus on the opportunities to protect and provide water resources at lower costs.

### SYRACUSE UNIVERSITY

- Facilitated the Puerto Rico Recycling Partnership (PRRP) as a service to the Puerto Rican government and the EPA to promote materials source reduction, clean composting, reuse, and recycling through a working partnership including government (at all levels), non-profit organizations, citizens, environmental groups, and the private sector. The PRRP is designing programs, educating the public, and ensuring effective implementation.
- Partnered with the New York State Association for Reduction, Reuse, and Recycling to develop programs in the Hudson Valley that serve communities seeking to start or enhance their waste reduction programs.
- Partnered with the Department of Sanitation of New York on their NYC Compost Council to establish a best management practices protocol for hundreds of existing and new community compost sites throughout all five boroughs of NYC.
- Worked together with EPA and Onondaga County's *Save the Rain* program to plan and facilitate the first ever *National Green Infrastructure Communities Summit* in October 2013, inviting and hosting communities from around the country. Syracuse's critical involvement in the *Save the Rain* program has generated many successes in Onondaga County and communities throughout New York State, the EPA Region 2 office, and beyond by allowing Syracuse to transfer knowledge and technical training demonstrated first in Onondaga County.

### UNIVERSITY OF MARYLAND

- Providing technical support on the Maryland Smart Energy Communities (MSEC) program. The MSEC program, which is administered by the Maryland Energy Administration and funded by proceeds from the Regional Greenhouse Gas Initiative, is a model for community-scale energy policy and management. Maryland municipalities and counties join MSEC when they adopt two of three policy goals related to building energy efficiency, renewal energy generation, or transportation petroleum reduction. Upon adopting the policy goals, setting up a system for tracking energy patterns, and establishing

a plan for meeting the goals, communities receive a grant to kick-start their goal. Through recruiting, workshops, webinars, tutorials (i.e., energy Star portfolio Manager), and on-site visits, the EFC has engaged over 50 Maryland communities in the program, which is intended to be more than a one-time grant, and instead an on-going opportunity for communities to access funding, build a network of peers, develop innovative energy projects, and serve as leader for local businesses and residents.

- Worked with the Maryland Department of Natural Resources Chesapeake and Coastal Service to provide a framework for incentivizing local efforts to revitalize working waterfront communities and economies throughout the State. Known as Phase 1, the EFCs objective was twofold: 1) identify opportunities for state leaders to employ innovative financing policies and tools in support of local working waterfront initiatives; and 2) provide Maryland with a recommended structure for establishing a working waterfronts program within the agency.

The Maryland EFC found that the working waterfront development issues are uniquely local in nature and require community leaders to address and react to a myriad of issues including cultural and heritage protection, economic development, infrastructure construction and maintenance, as well as natural resource restoration and protection. As a result of the complex nature of working waterfront development efforts, the state plays a uniquely important role in informing decision-making and improving the capacity of local leaders to advance their working waterfronts efforts. Specifically, a working waterfronts program for the state of Maryland should focus on coordinating the collective resources at the state level to the benefit of local communities. The program should be based on five key working waterfront development elements: 1) comprehensive planning; 2) infrastructure financing; 3) cultural and heritage protection; 4) economic analysis and development; and 5) natural resource restoration and protection.

The Phase 2 effort currently underway to prove the EFC's findings uses the pilot community of Cambridge which will have the EFC focus on addressing each of these areas within the context of the City's existing planning efforts. The goal is to demonstrate how the state can mobilize and apply its resources to the benefit of local communities and traditional working waterfront economies and cultures.

#### UNIVERSITY OF NORTH CAROLINA at CHAPEL HILL

- Hosted a public forum featuring presentations from 10 prominent environmental finance experts and innovators from a variety of perspectives that cut across sectors and issues. Speakers included Stan Meiburg, former Deputy Regional Administrator, EPA Region 4; Andrew Sawyers, Director of EPA's Office of Wastewater Management, Office of Water; Alfred Griffin, President of the New York Green Bank, and many more. The forum fostered

discussion and identified emerging trends, strategies, and ideas that help answer the basic “how will we pay” questions at the heart of successful environmental protection. The event drew more than 130 in-person attendees and 250 online attendees from across the country.

- The EFC offered a workshop on financing green infrastructure for the Council of Infrastructure Authority and state revolving fund managers and staff. The workshop also included a tour of green infrastructure installations in the Ramsey-Washington Metro District, MN to showcase green infrastructure projects funded by SRF programs. The workshop and tour reached approximately 80 SRF professionals. In addition, as part of this project, the EFC produced a catalog of publications on green infrastructure for stormwater management that have finance relevance. Since May 2014, more than 900 people have accessed the catalog.
- The Georgia Funders Forum is a group of representatives from the various public finance programs for water, wastewater, and stormwater projects in the state of Georgia. Since 2007, the group has been meeting a few times annually. The informal meetings are convened and facilitated by staff from the EFC. The objective is for staff from various financing programs to provide updates on their respective programs and, in some cases, explore opportunities to collaborate.

#### UNIVERSITY OF LOUISVILLE

- Produced two Practice Guides: PG 33 – Communities, Trains, and Trainyards: Exploring Policy Options for Affected Municipalities and PG 34 – Using Principles of Environmental Sustainability to Improve Student Health. Through these Practice Guides, the EFC is able to reach out to a national audience via website. Specific themed guides are listed as resources on other websites such as the Kentucky Department for Environmental Protection (KDEP), the U.S. EPA’s Brownfields Urban Ag resources site, and the Geoprofessional Business Association.
- Co-authored and published a peer review chapter on participatory planning in an edited volume about Climate Change. Heberle, L., Merrill, S., Keeley, C. and Lloyd, S. (April 2014) [“*Local Knowledge and Participatory Climate Change Planning in the Northeastern U.S.*” in International perspectives on climate change: Latin America and Beyond (Editors Profs. Leah, Filho; Alves, Fatima; Caeiro, Sandra; and Azeiteiro; Ulisses). Springer. Cham Heidelberg, New York, Dordrecht, London, pp. 239-252.]
- Led the HUD/EPA Sustainable Communities Partnership grantee community members across the nation, providing them with webinars, workshops, practice guides, targeted fact sheets and one-on-one technical assistance in the areas of water infrastructure, brownfields, resiliency, and climate change in partnership with the EFCs at the University of Southern Maine, the University of Maryland, and the University of New Mexico.
- Assisted elected officials and community members in Louisville, KY with communication and obtaining information from EPA Region 4 representatives and KDEP officials regarding the Black Leaf Chemical Site. This also included assistance to a medical



researcher at UofL who agreed to perform limited biological sampling and testing of residents who live near the site.

- Presented to a national audience of 200 individuals from communities working on vacant property issues on the topic of effectively using comprehensive data to reach community goals - 2013 Reclaiming Vacant Properties Conference, Center for Community Progress, September 9-11, 2013.
- Keynote speaker for the Neighbor Works America Green Leadership Forum May 20<sup>th</sup>, 2014, in Louisville, KY on the topic of linking environmental protection and safety from toxic exposures with affordable housing initiatives. This was a national audience of about 100 community development professionals.

#### CLEVELAND STATE UNIVERSITY

- Collaborated with Don Iannone, Executive Director of Ashtabula County Growth Partnership, on the development of an Integrated Development Budget (IDB) in Butler County, Ohio creating a unified economic development budget and plan linking together the economic initiatives of all of the local governments and not-for-profit workforce organizations, and a private sector technology firm in the county. The IDB prioritizes investments in technology, infrastructure, and workforce, with increasing the capacity of the county fiber backbone, targeting investment in road and bridge, drinking water, and clean water infrastructure, and providing job training to meet the market needs of the region.
- Developed the funding strategy tying together the consortium of local governments, special districts, county government, the County Port Authority, the Transportation Improvement District, and technology and workforce effects together to create a more strategic-collaborative approach to economic development.
- Conducted a solid waste and recycling rate study for the City of Elyria, Ohio (population of approx. 54,000). The City has operated with a legislatively determined rate and lacking a cost driven formula. The defined rate is based on a “full cost pricing model.” The resultant increase is to capitalize a sinking fund for the replacement of their fleet of eight mechanized (one arm) collection trucks and trash and recycling bins.
- Working with the Ohio Department of Transportation on revenue enhancements through defining the market value of and selling the naming rights of public infrastructure assets, including highway interchanges and roadside assistance services in metropolitan areas of the state.
- Published (along with colleagues Bill Jarocki, Director of Enterprise Planning and Analysis, Montana Department of Revenue, and Kristina Gillespie, Chief Operating Officer, Voltaic Solutions, LLC) a series of three articles on environmental and infrastructure finance topics in the practitioner journal UIM: The Journal of Finance and Management for Water and Wastewater Professionals. The articles are based on EFC projects in Regions 5 and 10. The first article, Financing America’s Infrastructure Needs,

identified the utility of implementing for “useful life financing” to match the long-term financing strategy to the useful life of the capital asset. The second article entitled COFee: A Market Driven Solution to Today’s Clean Water Challenges, details the use of a Capacity Optimization Fee (COFee) system that promotes economic development and efficient use of the wastewater systems by industrial customers. The third article, entitled COFee in Action: The City of Nampa (Idaho) Solidifies the Connection between Wastewater Infrastructure and Economic Development, followed the first operating year of the COFee strategy.

#### WICHITA STATE UNIVERSITY

- Developed content and curriculum for a series of Conservation Planning and Water Loss workshops that were held in four locations across Iowa including: Storm Lake (10/29/13); Atlantic (10/30/13); Waterloo (11/5/13); and, Mt. Pleasant (11/6/13). These workshops focused on short and long-term conservation planning related to drought, as well as the impact of unaccounted for water within the utility. Other topics included emergency preparedness planning and how to use the WaterWise calculator to determine the true cost of water loss specific to individual W/WW utilities. The EFC partnered with the Iowa Association of Municipal Utilities for the development and delivery of these workshops. The EFC also worked in cooperation with the Iowa Department of Natural Resources to market the series. These workshops were extremely successful as noted through the positive evaluations. Over 130 operators and local government professionals from across Iowa participated in the workshops.
- Worked with the EPA Region 7 office to coordinate a dialogue with the Administrator and communities in South Central Kansas on March 13, 2014. The purpose of the event was to identify opportunities and challenges related to environmental regulations for small communities. The session hosted 35 participants and provided a platform for a candid and open discussion about small community opportunities and challenges on environmental compliance. The EFC staff provided a short presentation on the activities of the EFC over the last couple of years and then facilitated the session dialogue.
- Planned, coordinated and hosted the 2014 Regional Economic Area Partnership Regional Water Conference. The event was held in Newton, Kansas on May 29, 2014 at the Meridian Conference Center and with over 110 participants attending. The conference’s theme was *Regional Water Planning*, which focused on providing assistance to the State’s broad visioning this year to plan for the State’s water resources for the next 50 years. Keynote speakers from the Oklahoma’s State Water Planning Agency presented the plan currently in use in the state, which was followed by presentations involving the funding and content needed action in Kansas.

## **DOMINICAN UNIVERSITY AT CALIFORNIA**

- Worked with nine different Tribes in California and Arizona to help them develop their green economies. Support to Tribes included: 1) analyzing a transfer station and composting operation for the Big Sandy Rancheria and Morongo Tribes; 2) identifying recycling commodity prices and supporting recycling program expansion for the Gila River Indian Community; 3) exploring multiple financing options to support a waste program for the Big Valley Rancheria Band of Pomo Indians; 4) preparing a capital improvement plan for the Tohono O’odham Nation; and, 5) developing a financial feasibility guidebook for a Tribal composting operation for the Trinidad and Bear River Rancherias.

## **BOISE STATE UNIVERSITY**

- Completed reprogramming of its signature product, HydroDASH™. It provides a simple method for small water systems to generate financial data for lenders and regulators and translates financial data into actual knowledge about the true sustainability of a system. The system generates operating ratios, a debt coverage ratio, needed savings, an affordability index and various comparisons of revenues and costs.
- Worked with communities during the year to build financial and managerial capacity. The EFC helped the community of Kuna, Idaho, organize their finances so that the public works director was able to present a coherent financial plan to their council with the goal of creating a system reserve requirement. Additionally, considerable work was done on establishing a long-term rate strategy to meet their goals. West Valley water system is a small distribution water system with aging infrastructure. The EFC’s efforts were directed to help the system understand how to implement an asset management plan. Additionally, the EFC worked with the water system on how to apply for a rate increase with their Public Utility Commission.

***For more information about the Environmental Finance Program, please visit:***  
[http://www2.epa.gov/envirofinance.](http://www2.epa.gov/envirofinance)