

U.S. House of Representatives Committee on Transportation and Infrastructure
Subcommittee on Water Resources and Environment

Review of Innovative Financing Approaches for Community Water Infrastructure
Projects: Part II

March 21, 2012

Written Testimony of Lynn Broaddus
Director, Environment Program
The Johnson Foundation at Wingspread

Introduction

Good morning Chairman Gibbs, Ranking Member Bishop and distinguished members of the Water Resources and Environment Subcommittee. Thank you for inviting me to testify today.

My name is Lynn Broaddus, and I direct the Environment Program at The Johnson Foundation at Wingspread in Racine, Wisconsin. The Johnson Foundation's mission is to be a catalyst for positive and lasting change through leading-edge convening to create healthier environments and communities.

The Johnson Foundation is non-partisan and brings no preconceived ideas or fixed agendas to this or any issue on which we focus. We aim to have candid and authentic dialogue in an environment that fosters the trust and collaboration needed to identify innovative yet broadly supported solutions that have impact.

FSWI Report Background

I am here today to testify about a report released recently by The Johnson Foundation titled, appropriately enough, *Financing Sustainable Water Infrastructure*. This report lays out a roadmap for innovative ways to finance our nation's water infrastructure for the 21st century and beyond.

The report's recommendations were created from deliberations among a unique group of experts. In fact, these experts are similar to those the subcommittee has invited to this two-part hearing: public and private water utility managers, investment managers, municipal bond raters and underwriters, non-governmental organizations, foundations and other stakeholders.

These meetings were convened as part of The Johnson Foundation's ongoing initiative on U.S. freshwater issues known as Charting New Waters - a broad, collaborative effort dedicated to catalyzing new solutions to freshwater challenges we are facing in the United States. Charting New Waters represents more than three years of high-level engagement on freshwater issues. The initial phase of work led to the release of *Charting New Waters: A Call to Action to Address U.S. Freshwater Challenges*, a consensus report issued in September of 2010.

The latest report, *Financing Sustainable Water Infrastructure*, is a direct outcome of the Charting New Waters work. The Johnson Foundation, in collaboration with American Rivers and Ceres, convened a group of experts at Wingspread to discuss ways to drive funding toward the infrastructure we need for the 21st century. The *Financing Sustainable Water Infrastructure* report is a result of those meetings.

FSWI Report Findings

The report examines the operational, institutional, and market-related challenges that our water and wastewater utilities need to overcome if they are going to continue to support our people and industries into the next century.

I would also note in the report “sustainability” means multiple things. It means that the infrastructure itself includes sustainable elements such as natural infrastructure that can be used to provide low-cost protection of water supply and flood abatement. It also includes consideration of sustainable pricing and financing mechanisms and how to make sure that those mechanisms are structured in a way that actually incentivizes and supports water infrastructure decisions that will be appropriate for the next 50 to 100 years.

I would like to highlight some of the report’s recommendations that are relevant to this hearing and your work on innovative water infrastructure financing legislation.

- The water utility business model is changing. Historically, water and wastewater utilities have functioned as monopolies without competition. Now technological advances are allowing more options for water efficiency, water re-use, and water harvest. For example, Forbes recently did an article about how Google is using recycled gray water to cool its vast network of data centers – eliminating the demand for millions of gallons of treated drinking water. This is but one example of the sort of disruptive shift in traditional business models that needs to be factored into current thinking and planning.

As the price of water services rises, the cost of new technology drops, and concern for securing a water supply increases, we are likely to see a rise in use of these “disruptive” technologies, which can undermine the monopolistic nature of the water utility.

This can be a very good thing for society as a whole, but it means that the financial tools and risk models that have served the industry for the past fifty years need to be re-examined.

- With this we are likely to see more consolidation of systems and a move toward “one water” management, where wastewater, water supply, stormwater, and flood management are managed as one system rather than siloed into disciplines working at cross-purposes to each other.
- These changes and our shifting water demands drive the need to consider a number of innovative financing strategies including expanding the pool of water service funding, accounting and paying for ecosystem services and implementing distributed water services.

Expanding Pool of Water Service Funding:

We need to recognize that water systems are more than pipes and treatment plants and that roads, green spaces, and buildings are all critical to effective water management. This more comprehensive definition of water systems expands the funding pool. Other ways to expand the funding pool include partnering with heavy-use industrial partners and recovering valuable nutrients and energy embedded in the water and wastewater.

Accounting and Paying for Ecosystem Services:

We need an accurate valuation of ecosystems that can provide clean drinking water at a fraction of the cost of built infrastructure. These services are often not reflected on utilities' balance sheets, which could help expand debt capacity for other capital improvements. Linking payment for watershed services upstream can cost magnitudes less than treatment plants and new supply development.

Implementing Distributed Water Services:

It is often cheaper—and potentially profitable for private investment—to capture and manage water where it falls through low-impact development including on-site treated wastewater for use in toilets and irrigation, living roofs, and rain gardens.

WIFIA and H.R. 3145

Many of these recommendations are encapsulated in the bills put forward by both Chairman Gibbs, the discussion draft known as Water Infrastructure Finance and Innovation Act or WIFIA, and Ranking Member Bishop's H.R. 3145, the Water Quality Protection and Job Creation Act of 2011.

While The Johnson Foundation cannot offer any specific perspectives about this legislation, I can tell you generally about how these proposals fit into our report's recommendations.

WIFIA:

The WIFIA proposal covers many of the necessary recommendations discussed during our financing water infrastructure meetings and contained in the *Financing Sustainable Water Infrastructure* report. However, the report also emphasizes the importance of flexibility, recognition of new technology and the changing conditions in the water business in order to maximize the impact and effectiveness of new proposed financing mechanisms.

The water industry is on the verge of significant change even as we face our nation's growing freshwater challenges. In order to handle these uncertain but fast-paced changes, we need to have the ability to finance smaller, more incremental projects,

especially for smaller communities. This is perhaps even more important than finding financing for larger projects. If financing mechanisms are available only for “mega-projects,” then that is what we will get when a smaller solution might be a more cost-efficient answer.

Similarly we need to expand “prioritization” criteria and include more scenario planning as cities and communities have to consider a growing number of diverse factors depending on location including water supply security, energy impact, vulnerability to disruptive technologies, changing utility business structures, and changing weather patterns.

Finally, I will just note that this country is built on innovation, a successful balance of private and public funding and the private sector’s ability to find solutions. The same is true in the water business and participants contributing to the report noted it might prove counterproductive to assume that the way we do business will continue to hold the same risks and opportunities that they once did. We need to ensure that changing weather patterns, long-term projections of aquifer drawdown, and uncertainties about future energy costs are taken into consideration as projects are evaluated.

H.R. 3145:

I will just briefly touch on Ranking Member Bishop’s Federal Water Pollution Control Act, H.R. 3145.

First I think the two bills, while certainly different, do share a lot of common and important ground. H.R. 3145 also hits on a lot of the important themes from our report.

H.R. 3145 does recognize the inherent benefits of smaller projects. Certainly developing smaller projects that are more tightly focused can avoid some of the

problems we are currently seeing where communities can no longer afford to maintain larger projects because of population shifts, reductions in per capita water use, and other factors.

In addition, the legislation addresses new technologies and alternative infrastructure, as does the WIFIA legislation, which is a necessary and positive element to water systems planning.

Regarding the grant programs, our report found that long-term sustainable funding mechanisms produce the best possibility that projects will be sustained at the local level with local resources. The experts we convened expressed the strong sentiment that full-cost pricing is the most compatible with long-term, sustainable water management. Grant funding of water infrastructure can be at cross-purposes with this goal by hiding the true cost of water and wastewater services.

The Big Picture

While all of these efforts on innovative financing are necessary and important, I encourage this Subcommittee, my fellow panelists and stakeholders to include in your discussions an emphasis on the nature of the systems we want to fund, in addition to our consideration of how we finance these systems.

We can bring about a more cost efficient and effective system for the long term if we tackle not only how to maintain the existing system but how to improve it so that we can more effectively meet the needs of our shifting population and water resources relative to the environmental, social, and demographic changes we are expecting.

In Summary

So to summarize my main points I would say as we look for new ways to finance the necessary water infrastructure for this country:

- Remember that water infrastructure includes more than pipes and water treatment plants, as several witnesses and subcommittee members have referred to, and can be leveraged in helpful and cost cutting ways;
- The nature of the water industry is changing and great opportunities lie in private and public partnerships, especially in financing;
- While it is absolutely necessary to find new ways of financing our infrastructure, we must also ask ourselves *what* infrastructure best meets our needs and how that might be different from the infrastructure we already have; and,
- We need to be cautious about new water funding mechanisms that emphasize large projects that reduce a community's ability to respond to change.

I'd also like to ask unanimous consent to enter the *Charting New Waters* report and the *Financing Sustainable Water Infrastructure* report into the record.

Thank you for your attention to these issues and I would be happy to take any questions.

COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE
Truth in Testimony Disclosure

Pursuant to clause 2(g)(5) of House Rule XI, in the case of a witness appearing in a nongovernmental capacity, a written statement of proposed testimony shall include: (1) a curriculum vitae; and (2) a disclosure of the amount and source (by agency and program) of each Federal grant (or subgrant thereof) or contract (or subcontract thereof) received during the current fiscal year or either of the two previous fiscal years by the witness or by an entity represented by the witness. Such statements, with appropriate redaction to protect the privacy of the witness, shall be made publicly available in electronic form not later than one day after the witness appears.

(1) Name:

Lynn E. Broaddus

(2) Other than yourself, name of entity you are representing:

The Johnson Foundation at Wingspread

(3) Are you testifying on behalf of an entity other than a Government (federal, state, local) entity?

YES

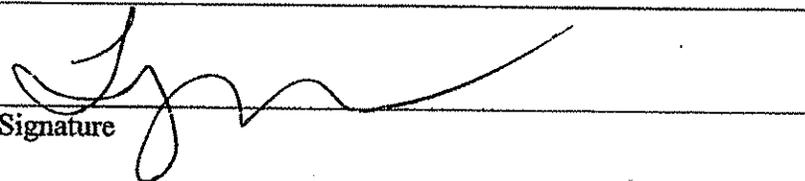
If yes, please provide the information requested below and attach your curriculum vitae.

NO

(4) Please list the amount and source (by agency and program) of each Federal grant (or subgrant thereof) or contract (or subcontract thereof) received during the current fiscal year or either of the two previous fiscal years by you or by the entity you are representing:

The Johnson Foundation receives no federal funding, nor do I.

Signature



8 March 2012
Date

Lynn E. Broaddus, Ph.D., M.B.A
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PROFESSIONAL EXPERIENCE

Director, Environment Program
The Johnson Foundation at Wingspread

2008 – present

Responsible for shaping the Foundation's Environment Program with an initial emphasis on water sustainability. Lynn has convened national leaders in government, business and non-governmental organizations to examine U.S. freshwater challenges, specifically as they relate to infrastructure, agriculture, energy, climate change, and public health. That work resulted in the release of a national consensus report, "Charting New Waters: A Call to Action on U.S. Freshwater Challenges" issued by a diverse group of stakeholders convened by The Johnson Foundation at Wingspread focused on changing U.S. freshwater policy.

Executive Director, Milwaukee Riverkeeper®

2003 – 2008

Responsible for all fundraising, policy oversight, board and staff development, and institutional strategy.

- Turned around organization during time of crisis and led Milwaukee Riverkeeper (formerly Friends of Milwaukee's Rivers) to become nationally recognized watershed leader.
- Elevated visibility and credibility of Milwaukee Riverkeeper®, including the acquisition of Riverkeeper boat used to help patrol and monitor area waters.
- Quadrupled organization's budget and paid staff, and grew the number of financial supporters and volunteers to more than 3,000. Milwaukee Riverkeeper is now the largest and strongest local water advocacy non-profit in the state, with one of the largest volunteer networks in the nation.
- Oversaw policy and strategy for all organizational matters and institutional direction-setting.
- Created organization's first major donor program, and established endowment to help ensure organization's long-term future.
- "Women Putting Their Stamp on Metro Milwaukee" Honoree, 2006.

Director of U.S. Network Partnerships, NatureServe

2000 –2002

Led the 50+ U.S. natural heritage programs legal aspects of data sharing and data development, capacity building, training, and institutional matters.

- Negotiated first ever nationwide data sharing agreement for natural heritage biodiversity databases.
- Brought the international network of natural heritage programs to consensus on design of new data system.
- Conducted regional training conferences for 100-150 network scientists and data managers.

The Nature Conservancy

1991–2000

Director, Delaware Natural Heritage Program

1995–2000

- Turned around program in crisis. Erased inherited debt, doubled size of program, co-led state's first ever biodiversity plan, and integrated program with Delaware Division of Fish and Wildlife.

Director of Science and Stewardship, Delaware Field Office

1993–1995

- Planned and directed all conservation for state, as its first staff scientist. Wrote and implemented conservation management and restoration plans for preserves in a variety of coastal habitats. Managed hunting and agricultural leases. Implemented reforestation plans, exotic species removal plans, and other preserve management activities. While serving as Acting State Director, landed \$800K grant to close the state's largest conservation land deal to date.

Science and Stewardship Assistant, Pennsylvania Field Office

1991–1993

- Responsible for all aspects of preserve management, and drafting conservation plans. Responsible for monitoring of endangered plant, mammal, and reptile species, as well as natural communities. Certified in prescribed burning, and conducted numerous burns of both high and low intensity.

Other positions held

- Biology/Mathematics Teacher, Foxcroft School, Middleburg VA, 1981-1985
- Coordinator of Low Cost Energy Conservation Program, Lawrence, MA 1980-1981

EDUCATION

MBA, University of Wisconsin – Milwaukee, 2003

Ph.D., Duke University, Departments of Botany and Genetics, 1991.

- Dissertation: "Natural Selection on Gynodioecy in *Plantago lanceolata* L.
- James B. Duke Fellow, 1985–1989

B.A., University of Virginia. Major: Environmental Sciences, 1980

CURRENT AFFILIATIONS

Board Member, River Alliance of Wisconsin, elected in 2006, (www.wisconsinrivers.org)

Board of Visitors Member, Nelson Institute for Environmental Studies, Univ. of Wisconsin – Madison, appointed in 2009, (www.nelson.wisc.edu)

Board Member, River Network, elected in 2010, (www.rivernet.org)

PAST AFFILIATIONS

Founding Officer, Milwaukee Environmental Consortium, 2003 - 2010

Board Member, Wisconsin League of Conservation Voters, 2009 - 2010