



2018 CIFA SRF WORKSHOP

Albuquerque, New Mexico

November 5 – 6, 2018

www.cifanet.org



COUNCIL OF INFRASTRUCTURE FINANCING AUTHORITIES

The Council of Infrastructure Financing Authorities (CIFA) is a national not-for-profit organization that represents the interests of state government agencies, including financing authorities and departments of public health and environmental protection, that are responsible for managing the Clean Water and Drinking Water State Revolving Funds (SRFs). SRFs are state-federal partnerships that provide communities with low-cost financing for water infrastructure that protects public health and the environment.



The annual CIFA SRF Workshop is made possible through a grant from the U.S. Environmental Protection Agency, whose mission is to protect human health and the environment.

2018 CIFA SRF WORKSHOP

AGENDA

Sunday, November 4, 2018

8:00 – 9:00 am **Registration (CIFA Members Only)**

3:30 – 6:00 pm **Registration**

6:00 – 7:00 pm **Welcome Reception**

Monday, November 5, 2018

8:00 – 9:00 am **Registration**

8:00 – 9:00 am **Breakfast**

9:00 – 10:45 am **Opening Plenary**

State of Water Infrastructure

Hear from the nation's leaders about what's new and what's next from the federal government in providing a clean, reliable and sustainable water supply that protects public health and the environment.

- Jeff Freeman, Minnesota Public Facilities Authority, CIFA President
- Dr. Andrew Sawyers, Director, EPA Office of Wastewater Management
- Dr. Peter Grevatt, Director, EPA Office of Ground Water and Drinking Water

Transforming Water Through Technology and Innovation

Learn how "big data," innovation and disruptive technology are transforming the way communities are repairing, building and maintaining critical water infrastructure.

- Albert Cho, Xylem

10:45 – 11:00 am **Break**

11:00 am –12:15 pm **Breakout Sessions**

Track 1: SRF 101: Nuts and Bolts

Learn the programmatic fundamentals of State Revolving Loans. Find out the purpose of an "intended use plan" and how it is developed, what "equivalency" and "set asides" mean, and the list of federal laws that require compliance.

Co-presenters:

- Michael Downey, California State Water Resources Control Board
- Sharon Simington, Arcadis
- Tim Wendland, Idaho Department of Environmental Quality

Track 2: Successful Strategies for Funding Innovative Projects

Learn how states are finding, facilitating and funding innovative projects using their State Revolving Fund. Find out about a partnership between Minnesota and Barataria-Terrebonne National Estuary in Louisiana to reduce nutrient loading into the Mississippi, plus reforms to the Clean Water Partnership to

increase participation. Hear how Vermont passed bold legislative reform to modernize their funds and create a sponsorship program targeted at reducing TMDLs. Learn about Pennsylvania's innovative nutrient credit trading program which provides a platform for buying and selling credits verified by the state. Hear how Oklahoma has developed partnerships across state government to tackle the challenge of non-point source pollution.

Moderator: Lori Johnson, Oklahoma Water Resources Board

Panelists:

- Robert Boos, PENNVEST
- Bill Dunn, Minnesota Pollution Control Agency
- Jeri Fleming, University of Oklahoma
- Terisa Thomas, Vermont Department of Environmental Conservation

Track 3: **Developing Targeted Marketing Campaigns for the SRFs**

Learn about a marketing and outreach initiative launched by EPA to increase the demand for loans by State Revolving Funds. Under the initiative, the EPA developed a model state marketing plan and has conducted state surveys and focus groups to gain insight for customizing outreach plans for target communities. Additionally, a communications workgroup was convened to share successful strategies across the nation. Hear first-hand how these efforts are making a difference in Florida, Oklahoma and Oregon.

Moderator: Joe Freeman, Oklahoma Water Resources Board

Panelists:

- Tim Banks, Florida Department of Environmental Protection
- Jennifer Kenny, Oregon Department of Environmental Protection
- Kelly Tucker, U.S. Environmental Protection Agency
- Tonya White, Oklahoma Water Resources Board

Track 4: **A Focus on Environmental Finance Centers**

Learn how Environmental Finance Centers are supporting the mission of State Revolving Funds. The session features asset management training and tools developed by Southwest Environmental Finance Center, state financial benchmarking and dashboards developed by the University of North Carolina Environmental Finance Center, and a statewide stormwater hub developed by the New England Environmental Finance Center.

Moderator: Karen Massey, Missouri State Environmental Improvement and Energy Resources Authority

Panelists:

- Heather Himmelberger, Southwest Environmental Finance Center
- Jeff Hughes, University of North Carolina Environmental Finance Center
- Martha Sheils, New England Environmental Finance Center

12:15 – 12:30 pm **Break**

12:30 – 1:45 pm **Pisces Recognition Ceremony and Luncheon**

The 2018 Clean Water State Revolving Fund PISCES Exceptional Projects will be announced and recognized by Dr. Andrew Sawyers. The Performance and Innovation in SRF Creating Environmental Success (PISCES) program recognizes projects that demonstrate sustainability, innovation or benefits to public health, water quality or the economy.

1:45 – 2:00 pm **Break**

2:00 – 3:15 pm **Breakout Sessions**

Track 1: **SRF 101: What Gets Funded**

Learn what borrowers and projects are eligible for funding. Find out what's the same and what's different in eligibilities between the Clean Water and Drinking Water State Revolving Funds.

Co-Presenters:

- Lori Beary, Iowa Finance Authority
- William Carr, Kansas Department of Health and Environment

Track 2: **Using the SRF to Tackle Emerging Issues**

Learn how State Revolving Funds are adapting their programs to address emerging water quality issues, such as contaminants of emerging concern in North Carolina, algae blooms in Ohio, and shale in Pennsylvania.

Moderator: Kim Colson, North Carolina Division of Water Quality

Panelists:

- Brion Johnson, PENNVEST
- Jerry Rouch, Ohio Environmental Protection Agency

Track 3: **Best Practices for Davis-Bacon**

Learn what SRFs are doing to help applicants comply with Davis-Bacon, especially in states without a prevailing wage. Hear how the Water Infrastructure Finance Authority of Arizona is using an informational packet to support applicants and how the New Hampshire Department of Environmental Services is exploring the use of web applications to tackle the issue.

Moderator: Mike Perkovich, South Dakota Department of Environment & Natural Resources

Panelists:

- Kathie Bourret, New Hampshire Department of Environmental Services
- Sara Konrad, Water Infrastructure Finance Authority of Arizona

Track 4: Keeping State Revolving Fund Programs Competitive

Learn the various strategies to keep your State Revolving Fund financially efficient in today's dynamic and increasingly competitive financial markets. Hear from some of the nation's leading financing experts for their insights as it relates to prospective SRF program enhancements (including maximizing borrower interest and balance sheet opportunities), general financing opportunities (in terms of structures and products in a rising interest rate environment) as well as a rating agency view of the SRF sector (including program challenges and methods to maintain the sector's high ratings).

Moderator: Tom Liu, Bank of America Merrill Lynch

Panelists:

- Lisa Daniel, PFM
- Scott Garrigan, S&P
- Scott Robertson, Bank of America Merrill Lynch

3:15 – 3:30 pm

Break

3:30 – 4:45 pm

Breakout Sessions

Track 1: SRF 101: Basics of Financing

Learn everything you need to know about funding and leveraging, from local match and fees to different types of bonds.

Moderator: Scott Campbell, Ohio Water Development Authority

Panelists:

- Ryan Callender, Squires Patton Boggs
- Jessica Cameron Mitchell, PFM
- Tim Williams, RBC Capital Markets

Track 2: Using Drinking Water State Revolving Funds to Achieve Compliance

Learn how three states are using the versatility of the Drinking Water State Revolving Fund to help water systems achieve and maintain compliance with the Safe Drinking Water Act. Find out about Virginia's planning and design program, its lead service line replacement grants, and how the state uses the Enforcement Targeting Tool to assist communities *before* they hit the critical "11." Discover how New Mexico uses set-asides to offer technical assistance to water system operators and help systems to identify technical issues that limit the system's ability to become more sustainable. Hear how Oklahoma uses its subsidy (principal forgiveness) to achieve and maintain compliance through regionalization/consolidation and by correcting health-based violations.

Moderator: Nick Chamberlain, U.S. Environmental Protection Agency

Panelists:

- Howard Eckstein, Virginia Department of Health
- Eddie Rhandour, Oklahoma Department of Environmental Quality
- Danielle Shuryn, New Mexico Environment Department

Track 3: Developing the Next Generation Water Workforce

Learn what states are doing to recruit, retain and replace utility managers, especially in small systems. Hear about different ways states and utilities are recruiting and retaining workers, and learn about the Water Pro Apprenticeship Program, an innovative training program designed to develop operations specialists for water and wastewater treatment plants.

Moderator: Steve Grossman, Small Community Water Infrastructure Exchange

Panelists:

- Heather Himmelberger, Southwest Environmental Finance Center
- Olga Morales, Rural Community Assistance Corporation
- Bill O'Connell, National Rural Water Association

Track 4: Investor Perspectives on SRFs

Learn about investors views on SRFs and how leveraged SRFs can grow the investor base. Hear first-hand about buy-side preferences, what constitutes effective marketing in the short-term for individual bond issues and what works over the long-term to build investor awareness and stimulate demand.

Moderator: Greg Swartz, Piper Jaffray

Panelists:

- Neil Flanagan, Jefferies
- Tom Paolicelli, Bondlink



Join Us for an Evening Reception
at the Pueblo Indian Cultural Center

2401 12th Street NW
Albuquerque, New Mexico
6:30 – 8:30 PM

The Indian Pueblo Cultural Center, a world-class museum where Pueblo people can tell their story, showcases New Mexico's 19 Pueblo tribes:

Acoma • Cochiti • Isleta • Jemez • Laguna • Nambe • Picuris • Pojoaque • Sandia • San Felipe • San Ildefonso
• Ohkay Owingeh • Santa Ana • Santa Clara Santo • Domingo • Taos • Tesuque • Zia Zuni

The mission of the organization is to preserve and perpetuate Pueblo culture and to advance understanding by presenting with dignity and respect, the accomplishments and evolving history of the Pueblo people of New Mexico.

Tuesday, November 6, 2018

8:00 – 9:00 am **Breakfast**

9:00 – 10:00 am **Plenary Session**

A New Mexico Perspective

Learn how New Mexico Environment is protecting public health and the environment.

- Butch Tongate, Secretary of the New Mexico Environment Department

Building a Resilient Water Supply

Learn about the Water Network Tool for Resilience (WNTR), an open source online tool developed through a partnership between the U.S. Environmental Protection Agency to simulate and analyze resilience of water distribution networks.

- Katherine Klise, Energy Water Systems Integration, Sandia National Laboratories

10:00 – 11:00 am **Breakout Sessions**

Track 1:

SRF 101: Building Blocks of Wastewater Infrastructure

Learn the basics of wastewater treatment to help you effectively communicate with engineers and project managers who are designing and building clean water infrastructure in your communities. Gain a fundamental understanding of the terms, technology and treatment systems that are commonly used in projects funded by the Clean Water State Revolving Fund.

Moderator: Jay Manning, Rhode Island

Presenter: David Dunn, Washington Department of Ecology

Track 2:

Challenges and Rewards of Being a Matchmaker

Learn how State Revolving Funds are fostering full consolidation, such as mergers, acquisitions, and new authorities, with new approaches and creative incentives. Hear how two states operating in different environments – Alabama and South Dakota – have risen to the challenge by adapting their programs to fund and support consolidation of water and wastewater systems.

Moderator: Jeff Hughes, Univ. of North Carolina Environmental Finance Center

Panelists:

- Kris Berry, Alabama Department of Environmental Management
- Andy Bruels, South Dakota Department of Environment and Natural Resources

Track 3: Communicating Better with Borrowers

Learn successful strategies for communicating with borrowers, especially in small systems. Hear how to attract small borrowers, identify and build relationships with stakeholders, ensure stakeholders understand the process, and shepherd projects to successful completion.

Moderator: Steve Grossman, Small Community Water Infrastructure Exchange

Panelists:

- Jerri Hargis, Oklahoma Water Resources Board
- Hannah Humphrey, Missouri Department of Natural Resources
- Anna Miller, Montana Department of Natural Resources & Conservation

Track 4: Leveraged Pooled Loan Revolving Fund Programs: The Future of Infrastructure Financing

Learn how leveraged pooled revolving fund loan programs are being used as a sustainable financing model for a wide range of infrastructure needs, including road and bridge, alternative energy and energy efficiency, municipal utility, building, public transportation, and airport projects. Hear about the drivers, challenges, structuring approaches (including the use of cross collateralization), and benefits of different types of infrastructure financing programs from three states at various stages of development and implementation – New Mexico’s 25-year-old Public Project Revolving Fund, Rhode Island’s recently leveraged Road and Bridge and Efficient Buildings Funds, and New Jersey’s newly formed Transportation Trust Revolving Fund.

Moderator: Richard Weiss, Morgan Stanley

Panelists:

- Jeff Diehl, Rhode Island Infrastructure Bank
- Michael Zavelle, New Mexico Finance Authority
- David Zimmer, New Jersey Infrastructure Bank

11:00 – 11:15 am Break

11:15 am – 12:15 pm Breakout Sessions

Track 1: The Role of SRFs in Disaster Recovery

Learn about a new Memorandum of Understanding between the U.S. Environmental Protection Agency (EPA) and the Federal Emergency Management Agency (FEMA) to streamline the use of disaster recovery funds for repairing and rebuilding water infrastructure through the SRF program. Hear how states are using State Revolving Funds to help communities recover and rebuild in the aftermath of a natural disaster, from recurring flooding in New Mexico to a catastrophic hurricane in Texas.

Moderator: Angela Knecht, Florida Department of Environmental Protection

Panelists:

- Sheila Platt, U.S. Environmental Protection Agency
- Charles Thomas, Southern Sandoval County Flood Control Authority
- Mark Wyatt, Texas Water Development Board

Track 2: The Latest on the Water Infrastructure Finance and Innovation Act (WIFIA)

Learn the latest on WIFIA, including the status of implementation and efforts to streamline access to the program for SRFs. Here about the lessons learned from the first State Revolving Fund to apply for WIFIA and how provisions in America's Water Infrastructure Act of 2018 will

Moderator: Joe Boland, Missouri State Environmental Improvement and Energy Resources Authority

Panelists:

- Jorianne Jernberg, U.S. Environmental Protection Agency
- Jim McGoff, Indiana Financing Authority
- Matt Schnackenberg, PFM

Track 3: Building Partnerships for Success

Learn how SRFs and the U.S. Department of Agriculture's Rural Development Rural Water and Wastewater are working together to save money and improve outcomes, especially in small communities. Hear about cofunding with the U.S. Army Corps of Engineers and U.S. Department of Housing and Urban Development and about coordination on compliance with federal requirements such as environmental reviews and American Iron and Steel.

Moderator: Steve Grossman, Small Community Water Infrastructure Exchange

Panelists:

- Noel LaRoque, Idaho Department of Agriculture
- Karen Sanchez, Montana Department of Agriculture
- Nicole Schindler, U.S. Department of Agriculture

Track 4: Options in the New Interest Rate Environment

Learn about options and opportunities in the evolving economic environment with rising interest rates. Get the latest on best practices in investment management for revolving equity to grow SRFs and increase capacity. Hear the advantages and disadvantages of alternatives to fixed rate debt as a means to reduce interest expense.

Moderator: Greg Swartz, Piper Jaffray

Panelists:

- Anne Burger-Entrekin, Hilltop Securities
- Aaron Heintz, Wisconsin Capital Finance Office
- Nathan Keenan, Massachusetts Clean Water Trust



Thank You for Your Generosity!

Gold Sponsors

Bank of America Merrill Lynch
Tom Liu
Managing Director
thomas.liu@baml.com
(646) 743-1361

Morgan Stanley
Richard Weiss
Executive Director
richard.weiss@morganstanley.com
(212) 761-9060

Goldman, Sachs & Co.
Daniel Byrne
Vice President
daniel.byrne@gs.com
(212) 902-6538

PFM
Lisa L. Daniel
Managing Director
daniell@pfm.com
(901) 682-8356

Silver Sponsors

Citigroup Global Markets, Inc.
Robert Mellinger
Director
robert.a.mellinger@citi.com
(312) 876-3555

PNC
Samantha Funk
Managing Director, Public Finance
samantha.funk@pnc.com
(215) 585-5432

Hilltop Securities
Anne Burger Entrekin
Regional Managing Director
anne.burgerentrekin@hilltopsecurities.com
(210) 308-2200

Squire Patton Boggs
Ryan K. Callender
Partner
Ryan.callender@squirepb.com
(216) 479-8395

Jefferies
Neil J. Flanagan
Managing Director
nflanagan@jefferies.com
(212) 336-7022

Meet the Speakers

Plenary Sessions

Jeff Freeman, Minnesota Public Facilities Authority

Jeff Freeman, President of the Council of Infrastructure Financing Authorities, is Executive Director of the Minnesota Public Facilities Authority, a state agency that manages the Clean Water and Drinking Water State Revolving Funds and several other infrastructure financing programs. He has been with the Public Facilities Authority since 1996. Prior to that, he worked for twelve years for the Minnesota Pollution Control Agency in a variety of water quality positions. He has a Masters of Public Administration from the Humphrey Institute at the University of Minnesota and a Bachelor of Science from Minnesota State University, Moorhead.

Andrew Sawyers, U.S. Environmental Protection Agency

Andrew Sawyers is the Director of the Office of Wastewater Management at the U.S. Environmental Protection Agency. Before his recent appointment to that position he served as Deputy Director of the Office of Ground Water and Drinking Water. Prior to EPA he was the Deputy Director for the Maryland Water Quality Financing Administration, managing Maryland's Chesapeake Bay Restoration Fund and the Clean Water and Drinking Water State Revolving Funds. Andrew has a Ph.D. from Johns Hopkins University.

Peter Grevatt, U.S. Environmental Protection Agency

Peter Grevatt is the Director of the Office of Ground Water and Drinking Water (OGWDW). Prior to joining the OGWDW in October of 2012, Peter Grevatt served as the Director of the Office of Children's Health Protection and served as the Senior Advisor to EPA's Administrator for Children's Environmental Health. Peter has held leadership roles in EPA's national hazardous waste and water quality programs. Peter received his M.S. and Ph.D degrees in Basic Medical Sciences from New York University Medical Center and earned his bachelor's degree in Biology from Earlham College.

Albert Cho, Xylem

Albert Cho is Xylem's Vice President and General Manager for Advanced Infrastructure Analytics, a business that offers intelligent infrastructure diagnostics and decision support services to the water sector. Previously, Albert led Xylem's corporate strategy and mergers and acquisitions team. Before joining Xylem, Cho worked as Senior Advisor to the Deputy Secretary at the U.S. Department of State, where he was a White House Fellow and served on the Secretary of State's Policy Planning Staff. He was an executive at Cisco Systems, a consultant at McKinsey & Company, and served at the United Nations. Albert serves on the Board of Directors of the U.S. Water Alliance and the editorial advisory board of *World Water*.

Butch Tongate, New Mexico Environment Department

Butch Tongate is the Cabinet Secretary for the New Mexico Environment Department. During his 25 years with Department, he has held a number of leadership positions in various parts of the agency, including Chief of the Solid Waste Bureau, Special Projects Officer in the Administrative Services Division, Chief of the Occupational Health and Safety Bureau, Director of Environmental Protection Division, and Deputy Secretary. Prior to joining the Department, Butch worked as a legislative consultant in Washington, D.C., as Director of Marketing for Army programs at Hughes Aircraft Company, and as an officer in the United States Marine Corps. He received a

Bachelor of Science degree in Mathematics from the U.S. Naval Academy and a Master of Science degree in Systems Management from the University of Southern California.

Katherine Klise, Sandia National Laboratories

Katherine Klise is a Research and Development Scientist at Sandia National Laboratories. Recent research has focused on infrastructure resilience for water distribution systems, sensor placement optimization, and real-time data analytics for sensor networks. Katherine has a Master of Science degree from the University of New Mexico and leads several open source software projects at Sandia, including the Water Network Tool for Resilience (WNTR).

Breakout Sessions

Tim Banks, Florida Department of Environmental Protection

Tim Banks is Program Administrator for the Wastewater Funding Section at the Florida Department of Environmental Protection. This section includes the Clean Water State Revolving Fund Program and the Small Community Wastewater Construction Grants Program. He started with the Construction Grants Program in 1988.

Lori Beary, Iowa Finance Authority

Lori Beary is the Community Development Director for the Iowa Finance Authority where she serves as the primary administrator of the State Revolving Funds for Clean Water and Drinking Water. She is also responsible for the new Wastewater Treatment Financial Assistance Program created by the legislature in 2006. Lori is a past president of the Council of Water Infrastructure Financing Authorities. She earned a M.S. in Economics from Iowa State University and a B.A. from Grinnell College.

Kris Berry, Alabama Department of Environmental Management

Kris Berry is the Chief of the State Revolving Fund (SRF) Section for the Alabama Department of Environmental Management (ADEM). Kris joined the SRF in December 2017 and took over as Section Chief in April 2018. Previously, he spent 6 years working as a project engineer in ADEM's governmental facility hazardous waste program. Kris is a professional engineer with a B.S. in Biosystems Engineering from Auburn University.

Joe Boland, Missouri Environmental Improvement and Energy Resources Authority

Joe Boland is the Deputy Director, Missouri Environmental Improvement and Energy Resources Authority (EIERA), where he manages technical and financial assistance provided for environmental and water infrastructure projects. Before joining EIERA, he was the Director of the Missouri Department of Natural Resources' Financial Assistance Center and responsible for the Clean Water and Drinking Water State Revolving Fund programs as well as other state grant and loan programs. Prior to that he managed field investigations at Superfund and hazardous waste sites and was a member of Missouri's Environmental Emergency Response team. He has also served in other various roles with the department for over 27 years. Joe earned a Bachelor of Science degree in Geology and a Master of Business Administration from the University of Missouri.

Robert Boos, PENNVEST

Robert Boos is the Deputy Executive Director for Project Management at the Pennsylvania Infrastructure Investment Authority where he oversees water quality infrastructure project development. Rob's career began as a Field Technician with the Lawrence County Conservation District. The next 15 years were spent at the Department of Environmental Protection in the Water Quality Program as a Nutrient Management Specialist, Compliance Specialist, Sewage Planning Supervisor, and Sewage Facilities Group Manager. The last 6 years have been spent with PENNVEST overseeing the operations for the Nutrient Credit Trading Clearinghouse. Rob earned his B.S. in Environmental Science with a minor in Biology from Westminster College.

Kathie Bourret, New Hampshire Department of Environmental Services

Kathie Bourret is the Clean Water State Revolving Fund Federal Provisions Administrator for the New Hampshire Department of Environmental Services where she oversees a subsection within the Grants Management Section. Her duties include coordinating, facilitating and implementing programs and activities related to the Clean Water State Revolving Loan Fund Program and associated federal requirements. In her former role as the Davis Bacon Compliance Specialist, Kathie analyzed several web-based application options for monitoring, documenting and reviewing labor compliance. As a result of this effort, New Hampshire Department of Environmental Services has procured a web-based prevailing wage reporting system and implemented it for use on numerous wastewater projects.

Andy Bruels, South Dakota Department of Environment and Natural Resources

Andy Bruels is an Engineering Manager for the South Dakota Department of Environment and Natural Resources. Since 2009, Andy has administered state grant and loan programs along with the Clean Water and Drinking Water State Revolving Fund programs, primarily handling the technical engineering aspects. Previously, he spent five years as a project engineer overseeing specific projects with state and federal funding from review of the funding application through completion. Andy serves as the department's primary contact for regional rural water systems. He received his Bachelor's degree in Civil Engineering from Minnesota State University Mankato and has been a registered Professional Engineer in South Dakota since 2013.

Anne Burger-Entrekin, Hilltop Securities

Anne Burger-Entrekin is Regional Managing Director of Hilltop Securities. She provides financial advisory and consulting services to numerous state agencies, cities, state revolving funds, utility systems, special districts, river authorities, counties, school districts and college districts. During the past five years, she has served as financial advisor on more than \$9 billion in par amount of debt instruments that has included multi-year, billion dollar capital improvement programs, complex restructurings, variable rate debt, conduit financings, utility acquisitions, and start-ups. She has expertise in structures and debt issuances related to the State Revolving Fund Act, the Water Quality Act, and the Drinking Water Act, American Recovery and Reinvestment Act ("ARRA") as well as extensive experience with pool and leveraged pooled programs and financings.

Ryan Callender, Squires Patton Boggs

Ryan K. Callender is a public finance attorney with Squire Sanders (US) LLP. He has served as bond counsel, counsel to credit enhancers, underwriters, trustees and public issuers in a variety of conventional and capital market public debt financings. Ryan has been integrally involved as the co-bond counsel for DC Water, and he has also served as bond counsel and underwriters'

counsel for various state revolving funds, including as bond counsel for the Ohio Water Development Authority for more than \$1 billion of bond and commercial paper issues. In addition, Ryan has experience with a variety of industrial development revenue bonds, housing revenue bonds, conduit financings and 501(c)(3) bonds.

Scott Campbell, Ohio Water Development Authority

Scott Campbell is Executive Director of the Ohio Water Development Authority. He has served in multiple roles during his three decades of public service at the Authority, including Chief Financial Officer/Assistant Executive Director, Chief Operating Officer, and Controller. Prior to 1987, he was employed with a national public accounting firm. He received his license as a certified public accountant in 1993. He earned a Bachelor of Arts degree in Accounting from Mount Vernon Nazarene University.

William Carr, Kansas Department of Health and Environment

William Carr is the Kansas Public Water Supply Loan Fund Program Manager for the Bureau of Water of the Kansas Department of Health and Environment. He oversees both programmatic and financial functions of the Kansas Drinking Water State Revolving Fund. He has worked for the Department for 20 years, starting as a radio-chemist for the Kansas Health and Environmental Laboratories. William earned a B.S. in Chemistry from Graceland University in Iowa.

Nick Chamberlain, U.S. Environmental Protection Agency

Nicholas (Nick) Chamberlain is the Team Lead for the Drinking Water State Revolving Fund at EPA Headquarters in Washington, DC. In this role, he manages the development of guidance, training and the delivery of technical assistance to our stakeholder partners in government and industry. Nick has worked at the EPA since 2008 and has a bachelor's degree in Government and Politics, Environmental Science & Policy from the University of Maryland.

Kim Colson, North Carolina Department of Environmental Quality

Kim Colson is Director of the Division of Water Infrastructure, North Carolina Department of Environmental Quality. He is a Licensed Professional Engineer in North Carolina. He has been in the water resources industry for over 28 years working both with a privately-owned public utility and North Carolina's environmental agency eventually becoming director of the newly created Division of Water Infrastructure. As director of the Division of Water Infrastructure he also serves as chair of the State Water Infrastructure Authority. He is also the recipient of the national 2016 Water Finance and Management award.

Lisa Daniel, PFM

Lisa Daniel is Managing Director of PFM. Lisa serves as the engagement manager to a host of state and local government entities, providing them with a broad range of financial advisory services, including financing structure strategies, rating agency relations, debt capacity analyses, new credit development, debt restructuring opportunities, investor relations and transaction execution. She also serves as a co-Director of PFM's Environmental Finance practice, focusing on state-level pool programs and state revolving fund sectors. Lisa serves PFM's Board of Directors, the Environmental Financial Advisory Board to EPA and the Board of the Council of Infrastructure Financing Authorities. She is a Certified Public Accountant (inactive).

Jeffrey R. Diehl, Rhode Island Infrastructure Bank

Jeffrey R. Diehl is the Executive Director and CEO of Rhode Island Infrastructure Bank, a quasi-state agency whose mission is to invest in key infrastructure in the State of Rhode Island including programs focused on clean water, drinking water, road and bridge, brownfield remediation, energy efficiency and renewable energy projects for municipalities, quasi-state agencies, commercial and residential property owners. Jeff has over 35 years of experience in public finance and prior to this role was the Managing Partner of Strategic Sovereign Advisors LLC, a consulting firm advising governments and financial institutions. Previously, he held various senior positions at HSBC, a global financial institution, including Vice Chairman – US Public Sector and Global Head of Public Sector Banking. He holds BA and MBA degrees from the University of Michigan.

Michael Downey, California State Water Resources Control Board

Mike Downey is an Engineering Manager for the State Water Resources Control Board, Division of Financial Assistance. He manages the Water Recycling Funding Program which pairs State bond funds with California's Clean Water State Revolving Fund. Mike primarily handles technical engineering aspects of the funding process and serves as the Division's primary contact for recycled water systems. Previously, he spent seven years in consulting focused on planning and design of water and wastewater projects. He received his Bachelor's degree in Civil & Environmental Engineering from University of California – Berkeley and has been a registered Professional Engineer in California since 2010.

Bill Dunn, Minnesota Pollution Control Agency

Bill Dunn has been with the State of Minnesota for over three decades. The last 16 years as MPCA's Clean Water Revolving Fund Coordinator that strives to assist projects applicants that are seeking SRF low interest loans, affordability and pollutant-based grants. Two decades ago, Bill escaped the Metro wastewater service area and has been living worry-free with a private conventional, 2 trench gravity septic system since that time. Bill also currently serves as Chief Steward of Local 301 Minnesota Association of Professional Employees (MAPE) labor union.

David Dunn, Washington Department of Ecology

David Dunn is currently employed as an Engineer for the Department of Ecology's Water Quality - Financial Management Section. David manages performance and provides oversight for the grant and loan programs offered by the Department. Previously, he served as a design review engineer and permit manager in the Department of Ecology's Central Regional Office. He has been with the Department of Ecology for seventeen years, previously having worked as an engineering consultant. David received his bachelor's degree in Chemical Engineering and a master's degree in Environmental Engineering from the University of Utah.

Howard Eckstein, Virginia Department of Health

Howard Eckstein is the Project Officer in the Virginia Drinking Water State Revolving Fund Program. He is involved with both programmatic and financial functions of the Virginia Drinking Water program. He has worked for the Department for 5 years. Howard earned a B.A. in Managerial Economics from Hampden-Sydney College in Virginia.

Neil Flanagan, Jefferies

Neil Flanagan is a Managing Director with Jefferies and Joint Head of the Municipal Investment Banking Group. During his 31-year career, Mr. Flanagan has been on the forefront of developing and implementing SRF credits touching on all aspects including inaugural programs, restructurings, reinvestment optimization, creative tax and refinancing strategies and streamlined/plain English disclosure. Mr. Flanagan has served as senior manager on over \$50 billion of securities for municipal clients across the country. Prior to joining Jefferies, Mr. Flanagan was a Senior Managing Director at Bear Stearns. He earned his Bachelor of Science in Financial Decision and Management Information Systems from the University at Albany, State University of New York.

Jeri Fleming, University of Oklahoma

Jeri Fleming is the Assistant Director and Outreach & Educator Coordinator for the Oklahoma Water Survey, where she works with communities, tribes, and government agencies to develop workshops and trainings specific to their needs. Additionally, she coordinates the development of information sheets, the OKH2O newsletter and serves as a guest lecture on environmental and water law topics for various OU classes. Jeri has a bachelor's degree in Mass Communications from Northeastern State University and a Juris Doctor from the University of Tulsa College of Law.

Joe Freeman, Oklahoma Water Resources Board

Joe Freeman has served as Chief of the Oklahoma Water Resources Board's Financial Assistance Division since August 1993. He joined the OWRB in 1990. Prior to joining the OWRB he spent 13 years in commercial and investment banking in Oklahoma. Freeman is Past-President of the Council of Infrastructure Financing Authorities. In 2010 he was named to the Oklahoma Rural Water Hall of Fame. In his present position, he oversees Oklahoma's Water and Wastewater Revenue Bond Loan Program, Clean Water State Revolving Fund Loan Program, the financial portion of the Drinking Water State Revolving Fund Loan Program, Emergency Grant Program, and the Rural Economic Action Plan Grant Program.

Scott Garrigan, S&P

Scott Garrigan is a Director and Lead Analyst in the U.S. Public Finance Utility Revenue Group at S&P Global. His ratings portfolio for SRFs and other municipal pools covers the entire United States, including all SRFs, state bond banks, and other economic development and local bond funds. Scott's utility portfolio covers both retail and wholesale water/sewer utilities across the country, but generally is concentrated east of the Mississippi. Previously, he was a member of S&P Global's State and Local Government Group, where he concentrated on credit analysis of school districts and municipalities throughout the Midwest. Scott earned a Master's of Public Policy from the University of Chicago. He also holds a Bachelor of Arts in both Public Administration and Political Science from the University of Wisconsin-Green Bay.

Steve Grossman, Small Communities Water Infrastructure Exchange

Steve Grossman is the coordinator for the Small Communities Water Infrastructure Exchange, established in 2002 under the auspicious of CIFA. It seeks to foster an exchange of information at a national level to assist water funding officials in enhancing the water and wastewater infrastructure in Rural America. Steve retired in 2017 after 29 years as the Executive Director of the Ohio Water Development Authority. Prior to that, he was the Assistant Director of the Ohio Environmental Protection Agency. Steve is a past President of the Council of Infrastructure Financing Authorities

and a past member of the Environmental Financial Advisory Board to the US Environmental Protection Agency. He has a BA in Economics from Lehigh University and a Master's degree in Management from the Sloan School of Management at MIT.

Jerri Hargis, Oklahoma Water Resources Board

Jerri Hargis is the Projects & Operations Manager of the Financial Assistance Division of the Oklahoma Water Resources Board. She joined the OWRB in 2013 as a Financial Analyst, began managing the OWRB Grants programs in February of 2014, and accepted her current position in February of 2018. Prior to coming to the OWRB Hargis owned and operated a feed store in Yukon, OK. She also managed her own venture capital company, as well as provided management for other venture capital companies across the State of Oklahoma, which helped provide financing for start-up companies under the Oklahoma Rural Venture Capital Act. She formerly served as the Vice-President and Human Resources Manager of Capital West Securities, a full-service brokerage firm.

Aaron Heintz, Wisconsin Capital Finance Office

Aaron Heintz is the Deputy Capital Finance Director for State of Wisconsin where he manages the state's Environmental Improvement Fund. Before his recent appointment to that position he served as Finance Programs Administrator for the state where he was heavily involved with the fund. The fund is comprised of the Clean Water Fund Program and Safe Drinking Water Loan Program. He has worked for the state for 13 years, all of which have directly been involved with the fund.

Heather Himmelberger, Southwest Environmental Finance Center

Heather Himmelberger has been the Director of the Southwest Environmental Finance Center since 1996. She has worked with water and wastewater utilities of all sizes, on a variety of issues, including, but not limited to: capacity development, asset management, water loss control, rate setting, regionalization/partnering, and regulatory compliance. Heather has had the privilege of visiting all 50 states and U.S. territories, multiple times each, and has worked with water or wastewater utilities in almost all of them. She is a registered professional engineer with a BS in Environmental Engineering from Penn State University, an MS in Environmental Engineering from Johns Hopkins University and is pursuing a PhD in Civil Engineering at the University of New Mexico.

Jeff Hughes, University of North Carolina Environmental Finance Center

Jeff Hughes is the Director of the Environmental Finance Center (EFC) at the University of North Carolina. Jeff is a faculty member with the School of Government where he teaches courses on environmental finance and policy for university students and practitioners. Jeff's firsthand experience with the financial challenges facing water utilities comes from having worked as a utility director for a small rural community in North Carolina prior to joining UNC. Jeff serves on the Finance Advisory Committee for the Water Research Foundation and is an expert witness to the EPA Environmental Financial Advisory Board. He received a master's degree in environmental engineering from the University of North Carolina at Chapel Hill and a bachelor's degree in engineering from Duke University.

Hannah Humphrey, Missouri Department of Natural Resources

Hannah Humphrey is Director of the Financial Assistance Center in the Missouri Department of Natural Resources' Water Protection Program, responsible for managing the Clean Water and Drinking Water State Revolving Fund programs and several state grant and loan programs.

Hannah has worked for the Department since 1996, first in the Hazardous Waste Program providing remediation oversight under various regulatory authorities, and later as a unit chief responsible for establishing the state's first long term stewardship program. She also served in the Division of Environmental Quality as the Community Assistance Coordinator, where she developed and directed a small community assistance program serving disadvantaged local governments. She holds a Bachelor's degree in biology from Park College in Parkville, Missouri.

Jorianne Jernberg, U.S. Environmental Protection Agency

Jorianne Jernberg is the director of the WIFIA program, a position she assumed at the end of 2016. In this capacity, she is managing the implementation of a new Federal lending program at EPA as well as overseeing the evaluation, underwriting, negotiation, and monitoring of water and wastewater infrastructure projects around the country. Prior to joining EPA, Jorianne served as the head of risk management and financial operations at the TIFIA program within the Department of Transportation where she was responsible for a team conducting a wide range of programmatic and credit functions. Jorianne has a BA and MPA from Cleveland State University.

Brion Johnson, PENNVEST

Brion Johnson is Executive Director of PENNVEST. He joined Pennsylvania's State Revolving Loan Fund [PENNVEST] as a Project Specialist soon after the program began in 1988 and focused on projects in the north central and northwestern areas of the state comprising 26 counties. He was appointed as Deputy Executive Director for Project Management in 1992 where he coordinated the identification, evaluation and recommendation of all capital improvement funding candidates and the nutrient credit trading program. He was also responsible for resolving issues that arose during, settlement, construction related to payment, and at final closeout and any ongoing covenants that may relate to the borrower throughout the loan process.

Lori Johnson, Oklahoma Water Resources Board

Lori Johnson is the Assistant Chief of the Financial Assistance Division of the Oklahoma Water Resources Board. She oversees the Board's five water and wastewater infrastructure grant and loan programs while also serving as the CWSRF Program Manager for Oklahoma. She has worked for the Oklahoma Water Resources Board for 10 years. Prior to her current position she worked on facilitating projects for the CWSRF, DWSRF and state programs. She also has experience in Environmental Reviews for the CWSRF program and Water Quality Monitoring in the state of Oklahoma. Lori holds a Bachelor's Degree in Biology from the University of Central Oklahoma.

Nathan Keenan, Massachusetts Clean Water Trust

Nate Keenan is Deputy Director of the Massachusetts Clean Water Trust where he has worked since 2011. During that time, he has worked to execute over \$1 billion in bond issuances, drafted the Trust's first Green Bond disclosure language, and developed a lead and copper pipe testing program for schools in Massachusetts. Nate graduated with a Bachelor's Degree from Saint Michael's College and a Master's Degree from Suffolk University.

Jennifer Kenny, Oregon Department of Environmental Quality

Jennifer Kenny is marketing and communications coordinator for Oregon's Clean Water State Revolving Fund program. She holds a Bachelor's Degree in journalism and a Master's in urban and regional planning. She has more than 10 years of community development experience working on the city, county, state and regional levels. Her background includes outreach, strategic planning, and policy and program development. Her articles on infrastructure,

community preservation and environmental sustainability have been published in state and national magazines.

Angela Knecht, Florida Department of Environmental Protection

Angela Knecht is a Program Administrator with the Florida Department of Environmental Protection. She joined the State Revolving Fund staff in 1998, where she has held various positions and is responsible for the financial aspects of the Clean Water and Drinking Water State Revolving Fund programs. Angela is a current board member of the City of Opa-Locka Financial Emergency Board and is a member of the Florida Grants Consortium advisory panel.

Sara Konrad, Water Infrastructure Finance Authority of Arizona

Sara Konrad is the Senior Program Administrator with the Water Infrastructure Finance Authority of Arizona. Sara has a Master's degree in Watershed Management from the University of Arizona and a Bachelor's degree in Geology from the University of Wisconsin. Before joining WIFA in 2009, Sara worked for the Arizona Department of Environmental Quality in the Stormwater Permits Unit and TMDL Unit, and for the Minnesota Pollution Control Agency in its Stormwater Compliance and Enforcement Unit. Prior to her career in state service, she served in the U.S. Peace Corps in Kenya where she was assigned to the Ministry of Forestry.

Noel LaRoque, U.S. Department of Agriculture

Noel LaRoque is the State Engineer for Idaho USDA Rural Development, a position he's held since 2003. He provides engineering, architectural and environmental technical support to the all RD programs in Idaho, including Water & Waste, Community Facility, Housing and Business Programs. He also provides technical support on Water & Waste projects for the Alaska Rural Development office. He has 16 years Federal experience. Prior to joining federal service, he worked as a consultant at Havlovick Engineering and Harding Lawson Associates. He has a B.S. in Engineering Science from Montana Tech of the University of Montana. He is a licensed Professional Engineer in Idaho and Utah.

Tom Liu, Bank of America Merrill Lynch

Tom Liu is the Manager of Bank of America Merrill Lynch's Water and Wastewater/SRF Group, which is the leader in water/wastewater and SRF financings. Since the inception of SRF financings in 1989 and for most of his 29-year career, he has specialized in SRF financings and has served as senior manager on over \$22 billion of SRF financings for 24 SRF programs throughout the U.S. He has also served as senior manager on numerous water and wastewater financings (including program and indenture restructurings, inaugural financings and bank placements) and advised on asset loan sales, consolidations and divestitures as well as proposed legislation. He was formerly the Interim Chairman to U.S. EPA's Environmental Financial Advisory Board and board member to CIFA. He is also a Certified Public Accountant (inactive status). He holds a B.S. from the University of Maryland in Accounting and Economics and an MBA from the University of Chicago in Finance and Economics.

Jay Manning, Rhode Island Department of Environmental Management

John (Jay) Manning, P.E. is a Principal Sanitary Engineer with the Rhode Island Department of Environmental Management, Office of Water Resources. He has been the Department's Clean Water State Revolving Fund Coordinator since the program's inception in 1990 as well as the manager of other state water pollution grants programs. Jay also conducts the environmental

review for all Drinking Water State Revolving Fund projects. Jay graduated from the University of Rhode Island with a B.S. in Civil and Environmental Engineering.

Karen Massey, Missouri State Environmental Improvement and Energy Resources Authority

Karen Massey is the Director of the Missouri State Environmental Improvement and Energy Resources Authority. She oversees the operations of the Authority including the Missouri Brownfields Revolving Loan Fund, solid waste, natural resource damages and weatherization assistance activities and the public security, tax and legal aspects of the State Revolving Loan Fund and private activity bond transactions. She previously served as the chair of EPA's Environmental Finance Advisory Board and is a past president of the Council of Infrastructure Financing Authorities. Karen is currently co-chair of CIFA's Municipal Markets Committee. Karen attended Loyola University-New Orleans and Missouri State University and holds a Juris Doctorate from the University of Missouri-Columbia School of Law.

Jim McGoff, Indiana Finance Authority

Jim McGoff is COO and Director of Environmental Programs of the Indiana Finance Authority. Prior to his current position, Jim served as Director of Environmental Programs and General Counsel for the Authority. Prior to joining State government, Jim was a partner in the Indianapolis law firm Bingham McHale LLP (currently Bingham Greenbaum Doll, LLP), where he was a member of the firm's public finance practice group, representing the State of Indiana and many Indiana cities and towns with their municipal borrowing needs. He was appointed to the US EPA Environmental Financial Advisory Board in 2016 and was also invited to be a member of the Great Lakes Protection Fund - Advisory Board. He graduated with a degree in Accounting from Indiana University Kelley School of Business and a J.D. from the Indiana University Maurer School of Law.

Anna Miller, Montana Department of Natural Resources & Conservation

Anna Miller is the Financial Advisor for the Montana Department of Natural Resources and Conservation. Ms. Miller works with State Loan and Grant Programs and the Federal State Revolving Fund program. She has been with these programs since 1991. These programs are used to fund projects for water systems, wastewater, and landfill projects. In addition, she has worked with local governments in Montana to institute uniform double entry accounting systems. Ms. Miller has served as the Chair for the State of Montana Local Government Funding Committee. This committee coordinates issues for state and federal funding agencies. She is a former President of the Council of Infrastructure Financing Authorities. Ms. Miller received her Accounting Degree from the University of Montana.

Jessica Cameron Mitchell, PFM

Jessica Cameron Mitchell is a Managing Director of PFM Financial Advisors, LLC. She provides project management for a broad range of state agencies and specializes in new program development, ongoing financial and strategic planning, competitive bid parameter development, credit rating strategy, program capacity analysis, review of legal documents, structuring of bonds, creating models for quantitative analysis, and alternative financing. Additionally, Jessica has served on PFM's financial advisory teams for numerous tobacco securitizations, including for Washington State Tobacco Settlement Authority and for the State of Minnesota.

Olga Morales, Rural Community Assistance Corporation

Olga Morales is a Regional Environmental Manager for the state of New Mexico and RCAC's Regionalization Program in 11 states. She is nationally recognized for facilitating partnership efforts among rural utilities. Her experience also includes national policy development as member and chair of the Environmental Protection Agency (EPA) National Drinking Water Advisory Council (NDWAC) and co-chair of the EPA Climate Ready Water Utilities Work Group. Olga is a graduate of New Mexico State University where she completed her undergraduate and graduate studies.

Bill O'Connell, National Rural Water Association

Bill O'Connell is a program manager with the National Rural Water Association supervising grants and contracts with USDA and EPA. He has 24 years of professional experience working with public water systems (PWS) and has been involved with wellhead and source water protection programs from the PWS level up to managing nationwide programs. As the Groundwater Specialist for 12 years with Montana Rural Water Systems Inc., he initiated the EPA/NRWA Wellhead Protection Program in Montana. Bill is also currently managing the rollout of the NRWA Apprenticeship Program, He has a BS degree in Geological Engineering from Montana Tech.

Tom Paolicelli, Bondlink

Tom Paolicelli is Senior Manager, Business Development for Bondlink, which provides municipal bond issuers with easy-to-use investor relations websites and investor analytics to help drive demand for bond sales. Tom is a former issuer with more than 20 years' experience and \$30 billion in bonds sold.

Sheila Platt, U.S. Environmental Protection Agency

Sheila Platt is a Lead Environmental Protection Specialist with the U.S. Environmental Protection Agency, Office of Wastewater Management. She has been a member of the Clean Water State Revolving Fund (CWSRF) since the program began in 1988, serving as the lead for a team responsible for the EPA's regional offices' oversight of the state programs, SRF training sessions conducted throughout the country and oversight of improper payments to Office of Management and Budget. Prior to working in the CWSRF program, Sheila worked for many years in the Construction Grants Program managing the allotment and reallocations of construction grants funds, tracking the federal funding and assisting with the implementation and oversight of the 205(g) State Management Assistance Grant Program.

Eddie Rhandour, Oklahoma Department of Environmental Quality

Eddie Rhandour is the Engineering Manager of Drinking Water State Revolving Fund (DWSRF) within the Oklahoma Department of Environmental Quality (DEQ). Eddie has been employed with DEQ since November 2006, 12 years. From November 2006 through May 2010, Eddie was employed in the Construction Permitting Section as plan review engineer. Eddie has been working with the DWSRF program since May of 2010 where he served as a project engineer for 7 years before becoming the program's Engineering Manager in January 2017. Eddie graduated from the University of Oklahoma with a Bachelor of Science in Civil Engineering and holds Professional Engineering license in Oklahoma.

Scott Robertson, Bank of America Merrill Lynch

Scott Robertson is a Vice President in the Bank of America Merrill Lynch's Water and Wastewater/SRF Group, which is one of the leading underwriters in these markets. Since 2016, Scott has specialized in SRF (wastewater and drinking water) financings and has served as senior manager on approximately \$3 billion of SRF financings for 10 SRF programs throughout the U.S. Scott has worked with SRF issuers in both the capital and bank-funded markets. Previously, he worked in the Global Asset-Backed Securities group at Banc of America Securities LLC structuring transactions involving a variety of consumer loan-backed securities. He graduated with a BSBA in Accounting from Boston University and has an MBA in Finance from Pace University in New York City.

Jerry Rouch, Ohio Environmental Protection Agency

Jerry is the Assistant Chief overseeing the Office of Financial Assistance, which administers both the Clean Water SRF and the Drinking Water SRF. Jerry has worked for Ohio EPA for over 27 years. He started his career with Ohio EPA conducting environmental reviews for Construction Grants projects, and was involved with the establishment and development of both the state revolving funds. He then moved to the Division of Environment & Financial Assistance. Jerry's educational background includes a Bachelor's Degree in Earth Science from Gannon University, and Master's Degrees in Natural Resources and Political Science from Ball State University.

Karen Sanchez, Montana Department of Agriculture

Karen Sanchez is the State Engineer at USDA Montana Rural Development. Prior to that she was an Environmental Engineer at the State of Montana SRF - State Revolving Loan – Program. At USDA Rural Development, Karen provides technical assistance to staff including review of Preliminary Engineering Reports. She advises project engineers on Agency requirements and specific planning, design and construction issues. Karen is a registered Professional Environmental Engineer. She has a B.S. in Microbiology Environmental Engineering and a Master's Degree in Environmental Engineering from Montana State University.

Nicole Schindler, U.S. Department of Agriculture

Nicole Schindler is Senior Engineer for Rural Utilities Service, Water and Environmental Programs for the U.S. Department of Agriculture. She began her career in 1998 as a consulting engineer and GIS analyst for URS Corporation. In 2002, she entered into federal service through the scholarly program as an Environmental Engineer with the Environmental Protection Agency where she worked to promulgate regulations for hazardous and radiological waste technologies. From 2010 to February 2015, she was the National Program Coordinator for the Drinking Water State Revolving Loan Fund Tribal Set Aside Program. Nicole received her BS in Environmental Science and Chemistry in 1998 from Virginia Tech and a MS in Civil/Environmental Engineering in 2000 from University of Maryland.

Matt Schnackenberg, PFM

Matt is a Director at PFM. Matt provides project management and support for a number of state and local government clients with an emphasis on state revolving funds. He provides clients with financial advisory services such as debt structuring, comprehensive cash flow model development, rating agency strategies, financing execution, and strategic planning. He has provided advisory services on several types of bonds and notes, including general obligation and various revenue-secured financings.

Martha Sheils, New England Environmental Finance Center

Martha Sheils is the Director of the New England Environmental Finance Center at the University of Southern Maine. Martha executes the long term vision of the Center and manages the development and implementation of program areas that include stormwater management and infrastructure financing, climate resiliency and adaptation, risk management, source water protection, natural infrastructure valuation and food recovery. Prior to working at the EFC, she was a Project Manager at the Harvard Institute for International Development at the Harvard Kennedy School of Government and held various other positions in the field of resource economics and policy. She holds a BA in Economics from Rutgers University, and a Master of Environmental Management in Resource Economics and Policy from Duke University's Nicholas School of the Environment.

Danielle Shurn, New Mexico Environment Department

Danielle Shurn is the Sustainable Water Infrastructure Group Manager for the NMED Drinking Water Bureau. This group of teams co-administer the DWSRF by developing the fundable list and also expend the DWSRF set-aside funds to provide technical, managerial, financial, planning and funding assistance to public water systems statewide. Danielle has worked for NMED for the last 14 years and previously served as the Lab and Data Manager for the Drinking Water Bureau. Danielle received her Master of Water Resources degree from the University of New Mexico and her B.S in Environmental Science from Allegheny College.

Sharon Simington, Senior Program Administrator, Arcadis US

Sharon Simington is a Senior Program Administrator for Arcadis US. With more than a decade of experience specializing in the planning, application, and administration of State and Federally funded projects. Sharon works with a team of over 30 Arcadians coordinating funding opportunities nationwide. She personally works as a liaison between the funding agency and receiving municipalities to provide a full scope of services from planning through closeout by utilizing a streamlined approach to managing all of the compliance with the requirements of the rules, regulations, and procedures for State and Federal programs.

Greg Swartz, Piper Jaffray

Greg Swartz is a Vice President in Public Finance for Piper Jaffray. Piper Jaffray has public finance offices throughout the United States and ranks in the top ten for public finance advising and underwriting. Greg coordinates Piper Jaffray's pooled finance and SRF practice alongside other local Piper Jaffray bankers throughout the United States. Prior to joining Piper Jaffray, Greg served as the Executive Director of the Water Infrastructure Finance Authority of Arizona, the Chief Financial Office for the Indiana Public Finance Office, and the debt management and SRF analyst for the Illinois Office of Management and Budget. In addition to coordinating Piper Jaffray's pooled finance and SRF practice, Greg serves as advisor and underwriter to communities throughout Arizona.

Charles Thomas, Southern Sandoval County Flood Control Authority

Charles (Chuck) Thomas is the Executive Engineer for the Southern Sandoval County Arroyo Flood Control Authority (SSCAFCA). Since 2011, he has been focused on building successful funding partnerships to complete flood control improvements incorporating green infrastructure and other community benefits using a mix of local, state, federal and private funding. His previous professional experience includes serving as Director for the New Mexico Mining and Minerals Division (MMD) as well as the Engineering Program Manager for the

Groundwater and Drinking Water Bureaus. Chuck has a Bachelor of Science degree in Mining Engineering from the New Mexico Institute of Mining and Technology and is a professional Civil Engineer registered in New Mexico since 1997.

Terisa Thomas, Vermont Department of Environmental Conservation

Terisa Thomas is the SRF Environmental Program Manager for the State of Vermont. She received her undergraduate degree in Environmental Health and Biology from Iowa Wesleyan College and a Master's of Environmental Public Health from Des Moines University. She worked as at the county level doing health inspections, wastewater permitting, and TNC compliance, then moved to drinking water permitting and compliance. In 2010, she began working for the Iowa Dept of Transportation's NEPA Project Manager. In 2016, she accepted a position with the state of Vermont's State Revolving Fund program housed within the Agency of Natural Resources.

Kelly Tucker, Environmental Protection Agency

Kelly Tucker is an Environmental Protection Specialist with the United States Environmental Protection Agency's Office of Wastewater Management. Ms. Tucker has served as a member of the State Revolving Fund Branch since 2005, where she is a member of a team which implements and evaluates the Clean Water State Revolving Fund and provides technical assistance to EPA's regional offices. She is currently the staff lead on project eligibilities and marketing and outreach. Ms. Tucker holds a Masters of Environmental Management from Duke University and a Bachelor of Science in Environmental Science from the University of Delaware.

Richard Weiss, Morgan Stanley

Richard Weiss is Executive Director of Morgan Stanley's Public Finance Department specializing in SRF and pooled loan debt issuance as well as water, wastewater and solid waste revenue bond and project financings. Since 1987, he has structured over \$30 billion of financings for issuers throughout the country. Richard has served as financial advisor or underwriter on twenty different programs for SRF and pooled loan issuers. He has also structured several public-private partnership financings involving the water and wastewater and solid waste sectors. Previously, he worked for the City of Philadelphia Water Department as an environmental engineer involved in water and wastewater systems planning and research. Richard is a graduate of Princeton University, Drexel University's graduate environmental engineering program and the Wharton Graduate School of Business.

Tim Wendland, Idaho Department of Environmental Quality

Tim Wendland is Program Manager at the Idaho Department of Environmental Quality. He served in Coast Guard and for the Department of Defense as a Merchant Seaman. Tim has been married for 30 years. He holds degrees in Accounting and Public Administration and is a Certified Public Accountant. Tim has spent the last 25 years with the state of Idaho.

Tonya White, Oklahoma Water Resources Board

Tonya White works with the Oklahoma Water Resources Board as the Marketing & Outreach Manager, providing a personal liaison between the OWRB, Oklahoma's Authorities and Districts and service providers to serve and facilitate an understanding of loan & grant program details, eligibilities and resource availability. The opportunity to work within OWRB allows for the successful merging of her financial background and a desire for Public Service. Being a fifth generation Oklahoman, Tonya takes pride that her responsibilities with the OWRB have a positive impact on the health and well-being of the state's citizens.

Tim Williams, RBC Capital Markets

Tim Williams heads RBC Capital Market's Public Power and Water Utilities Group where he focuses on SRF and water and sewer issuers nationwide. Tim has more than 18 years of public finance experience, senior managed, structured, and run cash flows for many SRF and water and sewer credits. He formerly worked at J.P. Morgan, UBS Securities and Merrill Lynch & Co. and has been involved in developing new bond approaches such as Green Bonds, as well as securing ratings upgrades, developing bond issuance strategies to meet capital improvements needs and providing the insight needed to address market constraints. Tim received a BA from Dartmouth College, an M.A. in Urban Planning from the University of Virginia, and an M.B.A. from the Wharton School.

Mark Wyatt, Texas Water Development Board

Mark Wyatt is the Director of Program Administration and Reporting for the Texas Water Development Board handling both the Clean and Drinking Water State Revolving Funds, along with state financing programs. Previously, he served as the Director to the Texas Community Development Block Grant program and administered USDA-Rural Development financing programs.

Michael Zavelle, New Mexico Finance Authority

Michael Zavelle is Chief Financial Strategist for the New Mexico Finance Authority, a position he's held since June 2009. As Chief Financial Strategist, he is responsible for investor relations, NMFA's bond program, portfolio management and ratings. Past roles include VP Finance for Fisk University, Brooklyn College/CUNY, and Baruch College/CUNY, SVP/COO for the New York Public Library, Planning and Administration Vice Chancellor for City University of New York and Managing Director with Chase Manhattan Asia Limited in Hong Kong and Tokyo responsible for client relations, loan and bond underwriting and syndications. Michael graduated from Dartmouth College with a BA in Economics and from Harvard University with an MBA.

David Zimmer, New Jersey Infrastructure Bank

David Zimmer is Executive Director of the New Jersey Infrastructure Bank, where he has served since 2010. Prior to public service, David worked in capital markets on Wall Street for more than two decades, where he gained considerable expertise in risk management, capital markets, and investment banking.

NOTES

