2022 National Stormwater Roundtable



October 19 - 21, 2022 Boston, Massachusetts

This meeting was organized by the Association of Clean Water Administrators with support from the United States Environmental Protection Agency.

Association of Clean Water Administrators

2022 National Stormwater Roundtable

EPA Region 1 Offices October 19-21, 2022 **Boston**, Massachusetts

PURPOSE

The 2022 National Stormwater Roundtable supports implementation of federal and state municipal, industrial, and construction stormwater programs nationwide by sharing best management practices, showcasing innovative state programs and initiatives, highlighting new technologies, facilitating discussion on national program enhancements and improvements, identifying state resource needs including tools, training and guidance, and proposing solutions to challenges and barriers faced by the regulators and other stakeholders.

ATTENDEES

The Stormwater Roundtable is national meeting specifically organized by state and federal regulators for EPA and state program staff representatives. Attendees include:

- State managers, permit writers, inspectors, and compliance staff involved in regulating stormwater
- EPA Headquarter and Regional staff involved in stormwater regulation
- Partnering state/federal agency staff that provide technical/regulatory assistance to stormwater programs
- Invited guests



SPECIAL THANKS TO THE PLANNING COMMITTEE

Christe Alwin (MI), Margarita Chatterton (RI), Alicia Denning (EPA HQ), Chip Gianfagna (VT), Paul Hlavinka (MD), Karen Mogus (CA), James Plummer (NEIWPCC), Jennifer Riley (UT), Laura Schifman (MA), Lindsay Skovira (EPA), Meredith Streeter (NY), Newton Tedder (EPA R1), Heidi Travers (RI), Rachel Urban (EPA HQ), and Rebecca Villalba (TX).

WEDNESDAY, OCTOBER 19

This meeting is only open to States, EPA co-regulators, and invited guests.

| 7:30 AM – 8:30 AM | BREAKFAST ON YOUR OWN |
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| 8:30 AM – 9:30 AM | SECURITY CLEARANCE AND REGISTRATION |
| 9:30 AM – 10:00 AM | LOGISTICS, WELCOME & OPENING REMARKS Sean Rolland, Association Clean Water Administrators Rebecca Villalba, Texas Commission on Environmental Quality Paul Hlavinka, Maryland Department of Environment Lisa Biddle, Environmental Protection Agency |
| 10:00 AM – 10:45 AM | EPA REGION 1 STORMWATER PROGRAMS OVERVIEW Chris Gianfagna, Vermont Department of Environmental Conservation Newton Tedder, Region 1, Environmental Protection Agency |
| 10:45 AM – 11:00 AM | BREAK |
| 11:00 AM – 11:30 AM | BOSTON CASE STUDY: CHALLENGES AND SUCCESSES Kate England, Director of Green Infrastructure, City of Boston |
| 11:30 AM – 12:00 PM | CONSTRUCTION INDUSTRY: A NATIONAL PERSPECTIVE Michael Mittelholzer, National Association of Homebuilders |
| 12:00 PM – 1:30 PM | LUNCH ON YOUR OWN |
| 1:30 PM – 2:00 PM | NATIONAL CENTER FOR STORMWATER TESTING AND EVALUATION OF PRODUCTS AND PRACTICES (STEPP) Seth Brown, National Municipal Stormwater Alliance |
| 2:00 PM – 3:00 PM | NEW ENGLAND STORMWATER RETROFIT MANUAL Dr. James Houle, University of New Hampshire Stormwater Center |
| 3:00 PM – 3:15 PM | BREAK |
| 3:15 PM – 4:00 PM | EPA CLEAN WATER NEEDS SURVEY AND WEF NATIONAL MS4 NEEDS ASSESSMENT Joshua Klein, Environmental Protection Agency Elisabeth Schlaudt, Environmental Protection Agency Bianca Pinto, Stormwater Institute, Water Environment Federation |
| 4:00 PM – 4:30 PM | FEDERAL FUNDING STORMWATER PROJECTS/EMERGING CONTAMINANTS Kelly Tucker, Environmental Protection Agency |
| 4:30 PM – 4:45 PM | WRAP UP AND ADJOURN |

THURSDAY, OCTOBER 20

This meeting is only open to States, EPA co-regulators, and invited guests.

7:00 AM – 8:00 AM BREAKFAST ON YOUR OWN

8:00 AM – 9:00 AM SECURITY CLEARANCE AND REGISTRATION

9:00 AM – 10:30 AM BREAK OUT ROOMS BY STORMWATER PROGRAM

ROOM 1 BREAK OUT DISCUSSIONS – MUNICIPAL

Facilitators:

Rebecca Villalba, Texas Commission on Environmental Quality Elizabeth Ottinger, Region 3, Environmental Protection Agency

- 1. State Program Elements that Exceed Federal Standards
- 2. Tools for MS4 Permit Implementation Forms, Geodatabases, SWPP Templates, Checklists
- 3. Rebranding Stormwater Infrastructure and Asset Management

ROOM 2 BREAK OUT DISCUSSIONS – INDUSTRIAL

Facilitators:

Paul Hlavinka, Maryland Department of Environment Alicia Denning, Environmental Protection Agency

- 1. State Program Elements that Exceed Federal Standards
- 2. Identifying and Dealing with Challenging Industries
- 3. Solutions Identified to Multisector Benchmarks for Chemical Oxygen Demand and Metals

ROOM 3 BREAK OUT DISCUSSIONS – CONSTRUCTION

Facilitators:

Chris Stone, Connecticut Department of Energy and Environmental Protection

Jeanne Riley, Utah Department of Environmental Quality

- 1. State Program Elements that Exceed Federal Standards
- 2. Innovative Targeting, Inspection, and Compliance Assurance Approaches
- Moving from Construction to Post Construction Requirements Educating New Owners/Operators

10:30 AM – 10:45 AM BREAK

10:45 AM – 11:15 AM PROGRAMMATIC REPORT: BREAK OUT DISCUSSIONS 10 MINUTES EACH

Municipal Stormwater Break Out Industrial Stormwater Break Out Construction Stormwater Break Out

11:15 AM – 12:00 PM INTEGRATED PLANNING WITH NPDES PERMITS:

STORMWATER AND WASTEWATER TOGETHER

Robyn DeYoung, Environmental Protection Agency Heather Huddle, Environmental Protection Agency Rachel Urban, Environmental Protection Agency

12:00 PM - 1:30 PM LUNCH ON YOUR OWN

1:30 PM - 2:00 PM KEYNOTE SPEAKER

Dr. David Cash, Region 1 Administrator, Environmental Protection Agency

2:00 PM - 3:15 PM

ASK THE EXPERTS: EPA OVERVIEW, DISCUSSION, AND Q&A

Census Bureau Definitions

Heather Huddle, Greg Schaner, and Rachel Urban, Environmental Protection Agency

Small MS4 Remand Rule

Greg Schaner, Environmental Protection Agency

Multisector General Permit

Alicia Denning and Emily Anwari, Environmental Protection Agency

Construction General Permit

Greg Schaner and Chris Clipper, Environmental Protection Agency

3:15 PM – 3:30 PM BREAK

3:30 PM – 4:45 PM HOT TOPICS ROUNDTABLE

Facilitators:

Sean Rolland, Association Clean Water Administrators Lisa Biddle, Environmental Protection Agency

- 1. Identification of New/Emerging Pollutants and Contaminants, and Approaches Under Consideration (PFAS, Plastics, Tire Particles, E. Coli, bacteria, 6PPD-Quinone)
- 2. Examples of Clear, Specific, and Measurable Goals Including Implementation Approaches
- 3. How Can Permitting Authorities Make it Easier to Comply with Permits
- 4. General Discussion Regarding Census Bureau Definition Change

4:45 PM - 5:00 PM WRAP UP AND ADJOURN

FRIDAY, OCTOBER 21

This meeting is only open to States, EPA co-regulators, and invited guests.

| 7:00 AM – 8:00 AM | BREAKFAST ON YOUR OWN |
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| 8:00 AM – 9:00 AM | SECURITY CLEARANCE AND REGISTRATION |
| 9:00 AM – 9:30 AM | STRATEGIES FOR TREATING STORMWATER AS A RESOURCE Justin Mattingly, Environmental Protection Agency Jonathan Bishop, Chief Deputy Director, California State Water Resources Board |
| 9:30 AM – 10:00 AM | ADVANCING STORMWATER RESILIENCY IN MARYLAND Jennifer Smith, Maryland Department of Environment |
| 10:00 AM – 10:15 AM | BREAK |
| 10:15 AM – 11:00 AM | RDA: UPDATES AND RECENT EXAMPLES Jonathan Bishop, California State Water Resources Board Mary Welch, Colorado Department of Public Health and Environment Erin Flannery-Keith, Region 1, Environmental Protection Agency Lindsay Skovira, Municipal Branch, Environmental Protection Agency |
| 11:00 AM – 11:30 AM | INTEGRATING STORM DRAINAGE INTO STREAMSTATS APPLICATION Pete Steeves, United States Geologic Survey Alana Speetzel, United States Geologic Survey |
| 11:30 AM – 12:00 PM | NEW TECHNOLOGY TO ASSIST WITH PROGRAM MANAGEMENT Rebecca Villalba, Texas Commission Environmental Quality Cassandra Rice, Environmental Protection Agency |
| 12:00 PM | WRAP UP AND ADJOURN |

Welcome & Opening Remarks

Association of Clean Water Administrators Sean Rolland

Sean Rolland is the Deputy Director and provides direct support to the Executive Director and the ACWA Board of Directors. He also supports several ACWA Committees and Workgroups, serving as a liaison to managers and staff at the federal agencies. Sean drafts letters, position statements, and testimony to be presented to Congress and the U.S. Environmental Protection Agency. Having worked with the Association for 20 years, his duties also include grants management, budget development, vendor negotiations, and contract review. He also keeps the membership informed on proposed CWA guidance, regulations, legislation, and recent case law. Sean initially joined ACWA in 2002 as a Legal & Policy Analyst. He has a law degree from Stetson University College of Law and has undergraduate degrees in both Marine Biology and Environmental Studies from Stockton University.

Texas Commission on Environmental Quality Rebecca Villalba

Rebecca L. Villalba has been working at the Texas Commission on Environmental Quality (TCEQ) since August 1996 in the Water Quality Division. In her current position, as the Team Leader of the Stormwater Team, she supervises permit writers that implement the Texas Pollutant Discharge Elimination System (TPDES) stormwater (construction, industrial, and municipal) and quarry programs and the Stormwater Processing Center. Ms. Villalba was the Team Leader for the combined Stormwater & Pretreatment Team for over six years. Previously, as a senior pretreatment coordinator, she performed pretreatment program audits, industrial categorical determinations, reviewed municipal permit applications and drafted permits, and reviewed program modifications to include local limits calculations. She is a TCEQ Aspiring Leaders Program alumni and has participated in the TCEQ's partnership efforts with the Mexican government related to the pretreatment program by providing training and technical assistance. Ms. Villalba has a Bachelor of Science degree in Chemistry with Chemical Engineering and Spanish minors from the University of Houston.

Maryland Department of Environment Paul Hlavinka

Paul Hlavinka has worked for the Maryland Department of the Environment since 2011, and writes both individual and general NPDES permits for industrial dischargers. Prior to that he worked for 25 years in industry as an engineer and program manager for several high tech firms. He holds a Masters in Engineering from UMD, an MBA from the University of St. Thomas, and his engineering BS from NDSU. He co-founded a local watershed group, the Muddy Branch Alliance, where he still volunteers his time to engage the community in water quality issues. He has served on both Montgomery County and City of Gaithersburg advisory groups, as WEF stormwater committee chairman, Engineers Without Borders officer, and volunteered with the Project Management Institute.

Environmental Protection Agency Lisa Biddle

Lisa Biddle is the Municipal Branch Chief in EPA's Water Permits Division in the Office of Wastewater Management. She has been working on wastewater, stormwater, and related policy issues for almost 20 years, first in the private sector and then with EPA's Office of Water since 2011. Lisa is a licensed professional engineer in Virginia and holds a BS in Civil Engineering from Bucknell University and an MS in Environmental Engineering from UNC, Chapel Hill.

EPA Region 1 Stormwater Programs Overview

Vermont Department of Environmental Conservation Chris Gianfagna

Chris "Chip" Gianfagna is the program manager for the Stormwater Program in the Vermont Department of Environmental Conservation. Chip started his career as a permit writer and inspector with the Stormwater Program before managing Vermont's Wastewater and CAFO Programs. He recently returned to the Stormwater Program as the manager and leads a small but mighty group of dedicated regulators administering municipal, industrial, and construction NPDES programs as well as a state-authorized post-construction program. He has a BS in environmental science from SUNY Plattsburgh and an MS in Environmental Engineering from Syracuse University.

Environmental Protection Agency – Region 1 Newton Tedder

| Newton Tedder is an environmental scientist at EPA Region 1. Newton holds a masters degree in Geology a is currently a senior permit writer in the Stormwater and Construction permit section at US EPA Region 1. I serves as the lead permit writer for Municipal Separate Storm Sewer (MS4) NPDES general permits for Nengland. | Не |
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Boston Case Study: Challenges and Successes

City of Boston
Director of Green Infrastructure
Kate England

| Kate England, GIP, ENV SP, is the Director of Green Infrastructure for the City of Boston. She has a background in engineering, landscape architecture and policy and has worked in the public sector in and around Boston for most of her career. Kate's current role was created by Mayor Michelle Wu in July 2022 to facilitate widespread implementation of green infrastructure in the City and help pursue many of the resilience goals outlined in the Boston Green New Deal. Prior to joining the City, Kate worked for the Massachusetts Department of Conservation and Recreation (DCR) where she served as the Regional Engineer for the Boston Region. She then went on to become a Regional Planner with DCR, where she chaired one of DCR's Climate Action Teams and worked on green infrastructure, resilience and ecological restoration projects across the state. Kate also previously worked for the Boston Water and Sewer Commission where she managed the Commission's green infrastructure projects through various stages of planning, design, construction, maintenance and monitoring. While in graduate school, Kate worked for the Rhode Island Department of Environmental Management, conducting stormwater utility feasibility studies. Kate holds two bachelor's degrees from Northeastern University, as well as a master's degree from Brown University. |
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Construction Industry: A National Perspective

National Association of Homebuilders Michael Mittelholzer

| Michael serves as Assistant Vice President for Environmental Policy within NAHB's Housing Finance and Regulatory Affairs area. Michael oversees NAHB's regulatory efforts concerning federal environmental laws impacting the residential land development activities, including the Clean Water Act's Section 402 NPDES program for stormwater discharges from residential construction sites. Michael has a Bachelor of Arts in Political Science and U.S. History from Goucher College and a Master of Science in Environmental Science from Johns Hopkins University. |
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National Center for Stormwater Testing and Evaluation of Products and Practices (STEPP)

National Municipal Stormwater Alliance Seth Brown

| Seth Brown has over 25 years of experience in the water sector and is the Principal and Founder of Storm and Stream Solutions, LLC and is also the Executive Director of the National Municipal Stormwater Alliance, which is a 501.c.3 representing stormwater-focused organizations in 24 states across 9 of the 10 U.S. EPA regions. Seth has a Ph.D. in civil engineering from George Mason University, teaches courses on water-related topics at Virginia Tech and the University of Maryland at Eastern Shore, and is a licensed professional engineer in the state of Maryland. |
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New England Stormwater Retrofit Manual

University of New Hampshire Stormwater Center Dr. James Houle

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EPA Clean Water Needs Survey and WEF National MS4 Needs Assessment

Environmental Protection Agency Joshua Klein

Joshua Klein has been with EPA for over 6 years in the State Revolving Fund Branch in the Office of Wastewater Management within the Office of Water. He currently leads the federal effort to administer the Clean Watersheds Needs Survey (CWNS), a comprehensive assessment of the capital costs (or needs) to meet the water quality goals of the CWA and address water quality and water quality related public health concerns. Josh graduated with a Master of Science in Environmental Science from American University in 2010, and has undergraduate degrees in Economics and Politics from Brandeis University.

Environmental Protection Agency Elisabeth Schlaudt

Elisabeth Schlaudt joined the State Revolving Fund Branch in the Office of Wastewater Management within the Office of Water in March 2020. She works alongside Josh Klein in supporting the Clean Watersheds Needs Survey (CWNS). Elisabeth has master degrees in Water Resources Management and Hydrogeology from the University of Wisconsin-Madison.

Water Environment Federation Wastewater Institute Bianca Pinto

Bianca Pinto is a Stormwater Practice Lead for the Stormwater Institute at Water Environment Federation (WEF). She manages the national stormwater initiatives at WEF including the annual stormwater recommendations to congress, MS4 Needs Assessment Survey, and MS4 awards. She is keen on collaborating with partner organizations and related technical volunteer groups to provide high-quality content at WEF's national conferences. During her five years of experience in the water industry, she has worked as a consultant in the U.S. Mid-Atlantic region and internationally on projects related to drinking water, wastewater, and stormwater design. Her drive stems from the benefits healthy water bodies provide to communities and surrounding ecosystems. Bianca has a B.S. from Virginia Polytechnic Institute and State University in Biological Systems Engineering with a focus on watershed management and green engineering.

Federal Funding Stormwater Projects/Emerging Contaminants

Environmental Protection Agency Kelly Tucker

| 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 implementation of the Bipartisan Infrastructure Law. Ms. Tucker holds a Masters of Environmental Management from Duke University and a Bachelor of Science in Environmental Science from the University of Delaware. |
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Break Out Rooms by Stormwater Program Municipal

Texas Commission on Environmental Quality Rebecca Villalba

| See bio on page 7. |
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| Environmental Protection Agency – Region 3 Elizabeth Ottinger |
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Break Out Rooms by Stormwater Program Industrial

Maryland Department of Environment Paul Hlavinka

| See bio on page 7. |
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| Environmental Protection Agency Alicia Denning |
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Break Out Rooms by Stormwater Program Construction

Connecticut Department of Energy and Environmental Protection Chris Stone

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| Utah Department of Environmental Quality Jeanne Riley |
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Integrated Planning with NPDES Permits: Stormwater and Wastewater Together

| Environmental Pr | otection Agency |
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| Robyn DeYoung | |

Bio unavailable at time of printing.

Environmental Protection Agency Heather Huddle

Heather Huddle is a member of the US EPA HQ stormwater permitting team in the Municipal Branch as an Environmental Engineer. Heather was the Regional Natural Resources Manager where she worked to manage the water permits and working to minimize the navy's impact to the environment. Prior to that, she was an environmental engineer in the private sector working to design and troubleshoot drinking water and stormwater infrastructure systems in the DC area.

Environmental Protection Agency Rachel Urban

| Rachel Urban is physical scientist in the United States Environmental Protection Agency (EPA)'s Office of Wastewater Management in Washington, DC. She's been a member of the stormwater permitting team for over 15 years and currently leads the team. She works with EPA regions, states, and stormwater stakeholders or implementing the stormwater permitting program. She has a Master of Science in Marine Estuarine Environmental Science and a Bachelor of Science in Natural Resources Management both from the University of Maryland at College Park. |
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Keynote Speaker

Environmental Protection Agency – Region 1 Administrator Dr. David Cash

| David W. Cash has spent his career in public service harnessing science, innovative policy and participatory decision-making to solve challenges and seize opportunities at the intersection of environment, economy and equity. Dr. Cash also spent a decade in Massachusetts state government where he held a range of senior positions, working to transform the Commonwealth's environmental and energy policy. As Assistant Secretary of Policy in the Executive Office of Energy and Environmental Affairs in Governor Deval Patrick' Administration, he was an architect of a range of nation-leading climate, clean energy and environmental justice policies. He then served as a Commissioner in the Department of Public Utilities, followed by serving as the Commissioner of the Department of Environmental Protection. Dr. Cash holds a Ph.D. in public policy from the John F. Kennedy School of Government at Harvard University, a science teaching degree from Lewis & Clark in Portland, OR, and a BS in biology from Yale. |
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Ask the Experts: EPA Overview, Discussion, and Q&A

Environmental Protection Agency Heather Huddle

See bio on page 18.

Environmental Protection Agency Greg Schaner

Greg has worked as an attorney for EPA's Office of Water since 2003. He has focused primarily on the NPDES stormwater program, including work on EPA's CGP, MSGP, and MS4 permitting. Prior to EPA, Greg worked for the State of Maryland, the National Association of Clean Water Agencies, and as an EPA contractor for SAIC. EPA received a BA from Colgate University, a graduate degree in environmental management from Duke University, and a JD at the Univ. of Maryland's night law school.

Environmental Protection Agency Rachel Urban

See bio on page 18.

Environmental Protection Agency Alicia Denning

Bio unavailable at time of printing.

Environmental Protection Agency Emily Anwari

Emily Anwari is on the stormwater team at U.S. EPA Headquarters in Washington, D.C. and leads the NPDES industrial stormwater program. She joined EPA's Office of Wastewater Management in 2013 and holds an M.A. in Environmental Policy from the George Washington University and a B.A. in Economics from Virginia Tech.

Environmental Protection Agency Chris Clipper

Christopher Clipper specializes in construction and industrial stormwater at the U.S. Environmental Protection Agency. He was on the reissuance team for the 2022 construction general permit for stormwater. Chris has twenty years of experience in the environmental industry, and held previous positions at the Oregon Department of Environmental Quality, Peace Corps Mexico, and consulting firms. He has a B.S. in Environmental Science from Rutgers University and an M.S. in Water Resources Science from University of Minnesota.

Hot Topics Roundtable

Association of Clean Water Administrators Sean Rolland

| See bio on page 7. |
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| Environmental Protection Agency Lisa Biddle |
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Strategies for Treating Stormwater as a Resource

Environmental Protection Agency Justin Mattingly

Justin Mattingly is with the Water Reuse Program in the Office of Water at the United States Environmental Protection Agency working on coordinating water reuse activity across EPA and the implementation of the National Water Reuse Action Plan. Justin has over 10 years of experience working in the water sector on a variety of issues in water reuse including treatment and monitoring systems for potable reuse, risk assessment, and policy and regulatory development for different water reuse applications.

California State Water Resources Board Chief Deputy Director Jonathan Bishop

Jonathan has served as Chief Deputy Director at the State Water Board since 2007, where he oversees Water Quality, Financial Assistance, Monitoring and Assessment, and Data Management for the State of California. Amongst other responsibilities, Jonathan oversees the Ocean Planning unit and lead the efforts to eliminate the impacts from once through cooling and reduced the discharge of trash from stormwater to the ocean. Jonathan worked for the Los Angeles Regional Water Quality Control Board for 20 years before being named as Executive Officer of the regional board in 2004. Some of the highlights of Jon's tenure with the Los Angeles Regional Board include the development of a new program to investigate the sources of groundwater contamination impacting drinking water wells, the development of a comprehensive water quality data management system and, the adoption of the first urban trash TMDL in the nation. Jonathan received a Bachelor's of Science degree in Environmental Engineering with an emphasis in water quality from Humboldt State University.

| In May of 2007 Jon accepted the position of Chief Deputy Director of the State Water Resources Contro Board. |
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Advancing Stormwater Resiliency in Maryland

Maryland Department of Environment Jennifer Smith

| Jennifer Smith is the Program Manager for the Maryland Department of Environment Stormwater, Dam Safety, and Flood Management Program. Ms. Smith has worked in the stormwater management field in Maryland for 35 years - 18 years at the local government, 8 years in private consulting, and for the past 9 years at the state level. Ms. Smith received a B.S. and M.S degrees in Engineering from Virginia Tech and is a Maryland registered professional engineer. |
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RDA: Updates and Recent Examples

California State Water Resources Board Jonathan Bishop

See bio on page 23.

Colorado Department of Public Health Mary Welch

Mary is a permit writer whose experience includes over 20 years of implementation of the Clean Water Act and National Pollutant Discharge Elimination System regulations. She received a bachelor of science degree from the Pennsylvania State University. As a consultant and regulator she has worked on permitting and compliance of domestic and industrial wastewater and stormwater. Currently she is a permit writer with the Colorado Department of Public Health and Environment. Some of her latest projects include stormwater permits for municipal separate storm sewer systems and renewal of the General Permit for Stormwater Discharges Associated with Non-Extractive Industrial Activity.

Environmental Protection Agency – Region 1 Erin Flannery-Keith

Erin is an Assistant Regional Counsel in Region 1's Office of Regional Counsel, where her practice focuses on Clean Water Act, environmental justice, and civil rights counseling. Erin joined EPA in 2009 and was an Attorney-Advisor in the Office of Water at EPA's Washington, DC Headquarters until 2018. A native New Englander, Erin moved to EPA Region 1 in 2018. Erin holds a B.A. from Wellesley College and a J.D. and certificate in environmental law from Elisabeth Haub School of Law at Pace University. She is also an editorial board member of the American Bar Association's *Natural Resources and Environment* law journal.

Environmental Protection Agency Municipal Branch Lindsay Skovira

| of Wastewater Management in Washington, DC. She's been with EPA since 2016 and is a member of the stormwater permitting and wet weather treatment teams. She has a Master of Science in Biology from the University of Central Florida and a Bachelor of Arts in Environmental Studies from the University of Pittsburgh. |
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Integrating Storm Drainage into StreamStats Application

United States Geological Survey Pete Steeves

Pete Steeves has been a GIS Specialist with the USGS since 1988, working primarily on Water Program. In the 90s he was part of a tandem in Massachusetts that launched what was to become known as StreamStats, which went National in the early aughts. Pete has worked in coordination with the National Hydrography Dataset (NHD) and Watershed Boundary Dataset (WBD) programs throughout their respective evolutions and was instrumental in contributing key ideas to the vertical integration of elevation, hydrography and watershed geospatial data....integral to watershed-centric programs like StreamStats. Over the past 17 years Pete has also been a member of the Transboundary Data Harmonization Task Force, which succeeded in harmonizing hydrography and watershed data along the international border with Canada and is now working on a maintenance plan.

Alana Spaetzel is a hydrologist with the U.S. Geological Survey New England Water Science Center. She helps

United States Geological Survey Alana Spaetzel

| federal, state, and local partners address water-quality issues related to transportation, urban hydrology, and water-supply protection. While pursuing her graduate degree in Geology at Boston College, Alana studied methods of estimating phosphorus loads in the Charles River Watershed. She recently published a repor characterizing water-quality trends and loads in the Scituate Reservoir watershed in Rhode Island and is actively involved in highway-runoff studies in Massachusetts and Connecticut. |
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New Technology to Assist with Program Management

Texas Commission Environmental Quality Rebecca Villalba

See bio on page 7.

Environmental Protection Agency Cassandra Rice

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