

First Name	Last Name	Title
Detlef	Knappe	Professor
Andrew Jennifer Colby	Richardson Sara Pellegrino	Chairman Emeritus Global Director
Andrew Jennifer	Richardson Sara	Chairman Emeritus Global Director
Eric	Dole	West Reg'l Energy Efficiency Lead
Alma Dylan Scott	Beciragic Christenson Miller	Management Consultant Water Resource Control Engineer
Alma James Scott	Beciragic DeCarolis Miller	Management Consultant Water Resource Control Engineer
Eric	Dole	West Reg'l Energy Efficiency Lead
Jeff	Neemann	Client Director
Esteban Robert	Azagra Ervin	Senior Vice President Senior Professional Engineer

Erin	Lansey	Project Manager
Eric	Dole	West Reg'l Energy Efficiency Lead
John	Norton	Director of Energy, Research, & Innovation
John	Rehring	Vice President
Jenny	Bywater	Water Resource Engineer
Dan Ed	Rodrigo Rectenwald	Sr. Vice President Hydrogeology National Practice Lead
Francesca	DePrima	Water Engineer
Sunny	Wang	Water Resources Manager
Celine Chris George Warren	Hyer Macey Demosthenous Wong	Americas Technical Practice Leader Condition Asses CEO Director of Marketing

Matthew Coleman Asset Manager

Celine Hyer
Chris Macey Americas Technical Practice Leader Condition Asses
George Demosthenous CEO
Warren Wong Director of Marketing
Matthew Coleman Asset Manager
Chris Macey Americas Technical Practice Leader Condition Asses
George Demosthenous CEO
Warren Wong Director of Marketing
Matthew Coleman Asset Manager
Erica Hermann Product Manager

Michelle Camp Regional Sales Director

Blake Neffendorf Assistant Public Works Director
Justin Licke

Karen Guz Senior Director, Water Conservation

Stephen Rugar Vice President

Shawn Petty Sales Manager

Steve Soldati Regional Sales Manager

Paul Smith

Eric Engelskirchen Engineer V
Michael Britch WWSP Engineering and Construction Manager

Nicole Blute Vice President

David Cornwell President
Issam Najm President
Richard Brown

Nicole Blute Vice President

David Cornwell President
Issam Najm President
Richard Brown

Carleigh Samson Water Process Engineer

Yongtao Li
Bosen Jin Graduate Research Assistant

Christopher Curran VP, PFAS Lead, Water

Jesus Alejandra Fraijo Water/Wastewater EIT

Tatiana Konstantis

Meg Roberts Senior Associate

Mitchell

Ramon

Satish

Tripathi

Managing Engineer

James
Myron

Cooper
Nealey

Global Director, Water Optimization
Senior Engineer

Scott

Cole

Vice President

Meg

Roberts

Senior Associate

Satish

Tripathi

Managing Engineer

James
Myron
Shilpa

Cooper
Nealey
Shivakumar

Global Director, Water Optimization
Senior Engineer
Envr. Engineer

Scott

Cole

Vice President

Meg

Roberts

Senior Associate

James
Myron

Cooper
Nealey

Global Director, Water Optimization
Senior Engineer

Scott

Cole

Vice President

Satish
Jose

Tripathi
Porro

Managing Engineer
CEO

Kim

Ervin

Global Technology Leader

Kyle
Varun

Thompson
Palnati

Reuse Technologist

Karl Ivan

San Luis

Jamie
Jennifer
Andrew

Lefkowitz
McLain
Sawyers

National Analytics Engineering Lead
Branch Chief
Director

Lori
John
Jorianne
Deirdre

Mathieu
Kane
Jernberg
Finn

Public Health Branch Chief
Senior Policy Advisor

Executive Director

Yvonne
Michael

Forrest
Turco

Director, Houston Water
General Manager/CEO

Alia

Vinson

Daniel
Claudia

Holloway
Faunt

Program Chief - Groundwater Availability and Use

Yvonne
Michael

Forrest
Turco

Director, Houston Water
General Manager/CEO

Alia

Vinson

Daniel

Holloway

Carleigh

Samson

Water Process Engineer

Kirsten

Yeung

Antony

Gibson

Technology Director

Ibrahim	Abusallout	Environmental Engineer
Lance	Littrell	Project Manager
Nathan	Moore	PhD Candidate
David	Lewin	Critical Security PgM
Lloyd	Foster	Actuary, Computational Mathematician
Kris	Schartau	Global Architect
David	Wallace	Chairman
David	Lewin	Critical Security PgM
Lloyd	Foster	Actuary, Computational Mathematician
Kris	Schartau	Global Architect
David	Lewin	Critical Security PgM
Lisa	Stone	
Tad	Bohannon	Chief Executive Officer
Timothy Andray	Garczynski DeCordova	Water Distribution Operations Manager

Aaron

Saeugling

Chief Innovation Officer

Beverli

Marshall

General Manager

Carla
Melinda

Artis
Friedman

Director, Supplier Diversity (North America)
President

Thomas
Zaid

Zurbuchen
Chowdhury

Associate Administrator
Director, Wtr Technology

Susheera
Trevor
Darren
Michael

Pochiraju
Voegelé
Lytle
McGuire

Water Systems Engineer 1
Engineer
Consultant

Polly

Barrowman

Sales Manager

Blen Jimma Principal Materials Engineer

Todd Dmytryshyn Assistant Director of Engineering

Bryan Hong Senior Engineer
Luis Valdez Civil Engineer

Courtney Jalbert Meteorologist / Analyst
Andi Corrao
Shaun Pietig
Sam Ziemann Vice President

Thomas Walski Sr. Advisory Product Manager
Eric McLeskey Vice President

Matt Huang Principal Planning Engineer

James Cooper Global Director, Water Optimization
Jonathan Keck Director of Technical Services

Ferdous	Mahmood	Project Manager
Thomas	Walski	Sr. Advisory Product Manager
Thomas	Walski	Sr. Advisory Product Manager
James	Cooper	Global Director, Water Optimization
Jian	Yang	Engineering Manager
Seth Jerome	Garrison Madigan	Senior Manager Executive Director
Kara	Shuror	Deputy Water Director
Jim James	Ginley Courchaine	Owner

Ryan

Nagel

Utility Management Solutions Group Leader

Alicia

Keeter

General Manager

Seth
Jerome

Garrison
Madigan

Senior Manager
Executive Director

Eva
Jonathan

Nieminski
Keck

Director of Technical Services

Clyde

Dugan

Manager

Clyde
Jason

Dugan
Glover

Manager

Martin
Jerry

Vaerum
Murphy

Mark
Ben

Germscheid
Egger

Nancy

McTigue

Dan

Farley

Water Process Specialist

Xi

Zhao

Water Treatment Engineer

Thomas Benjamin Redi Frank	Bruns Zeier Sileshi Natale	Vice President - Strategic Initiatives Senior Water Engineer Associate Professor CEO
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Frank Sina Arash	Natale Vedadi Moghadam Jafarzadeh	CEO
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Justin Jeffrey	Bartlett Meadows	Project Manager
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Lynn	Chamberlain	
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Geneva	Caponi	Engineer
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Javier	Esquivel	
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Delany	Macdonald	
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David
Greg
Anthony

Pernitsky
Thomas
Myers

Vice President, Water Treatment
General Manager

Tony
Matthew
Daniel
Damon

Myers
Charles
Nix
Roth

Associate
Public Utilities Operations Manager
Sr Prin, Enviro Eng

Joseph

Nattress

Program Director

Dominic

Gallelo

Michael

Klonsinski

Zachary

Jaffe

Ian
Mark
Benjamin

Robinson
Riley
Dutro

President/COO
Administrator

Maury Vincent	Gaston Hart	Marketing Services Manager Vice President
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Timothy	Bailey	Water Treatment Manager
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Thomas	Powell	Regional Electrical Engineer
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Arturo	Burbano	
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Veronica	Llaneza	Regional Process Engineer
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Shih-Chi	Weng	Scientist
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Meghan	Trahan	Engineer
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Naeem Bill	Qureshi Christiansen	Client Service Manager Director of Programs
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Margaret

Hunter

Chris

Wilkinson

President

Ed

Wicklein

Civil Engineer

Corey

Smith

Project Engineer

Christopher

Steary

Plant Manager

Russell

Gibson

W/WW Conveyance Practice Leader

Michelle

Peters

Environmental Engineer

Helene Baribeau Distribution System Water Quality Leader

Jennifer Liggett

Christopher Corwin Principal

Philip Brandhuber Owner

Christopher Hill Senior VP, Drinking Water Market Sector Leader

Helene Baribeau Distribution System Water Quality Leader

Jennifer Liggett

Christopher Corwin Principal

Philip Brandhuber Owner

Christopher Hill Senior VP, Drinking Water Market Sector Leader

Henry Croll Water/Wastewater EIT

Naomi Gevaerd De Souza

Tamzen Macbeth Remediation Practice Leader

Darcy Burke CEO

Tim Worley

Christa Rabia Yvonne Campbell Chaudry Heaney Director Industry Solutions - Water

Charlene	Kormondy	Physical Scientist
Sasa	Tomic	Digital Water \ Utility Management Services
James	Cooper	Global Director, Water Optimization
Satish	Tripathi	Managing Engineer
Satish	Tripathi	Managing Engineer
Sasa	Tomic	Digital Water \ Utility Management Services
James	Cooper	Global Director, Water Optimization
Thomas Sri Sri Dean	Walski Kamojjala Kamojjala Ford	Sr. Advisory Product Manager Senior Civil Engineer Senior Civil Engineer Managing Principal Engineer
Thomas	Walski	Sr. Advisory Product Manager

Sri
Dean

Kamojjala
Ford

Senior Civil Engineer
Managing Principal Engineer

Lauren
Chirag
Laura

Weinrich
Shah
Prater

Principal Scientist

Mike

McGill

Owner

Matt

Corson

Environmental Director

Matthew

Junker

Public Relations Specialist

Marci

Davis

Communications Practice Leader

Amit
Faith

Shrivastava
Kibuye

Post-Doctoral Researcher

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Trabold Watershed Superintendent
Environmental Quality Specialist

Eric Wert
Anne Spiesman Project Manager – Applied Water Quality Research
Engineer

Alex Gorzalski
Elizabeth Crafton Associate

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Tammy

Haby
Telfer
Benter

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General Manager

Graham

Moore

Executive Director

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Laura

Vergara
Higgins

Jason
John

Carter
Arena

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Business & Tech Manager

Keith
Kimberly

Tyson
Reed

Director, Office of Innovation and Research
Director of Metering and Billing

John
Cynthia
Hayley
Susan
Mona

Norton
Koehler
Williams
Allen
Cavalcoli

Director of Energy, Research, & Innovation
Workforce Development & Training Specialist
Membership Services Director
Principal, Executive Director

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Gina
Christopher

Boyd
Parra
Collier

Principal
Analyst
Assistant Utilities Director

Stephanie

Corso

CEO

Julie
Steven

Bliss Mullen
Hernandez

CEO
Founder/Instructor

Alex

Page

Jason

Assouline

Erin

Mackey

Managing Engineer

Christian

Sanders

Larry

Morris

Senior R&D Scientist

Bryan

Townsend

UV Technology Leader

Yoorae

Noh

Godson Ebenezer

Adjovu

Student

Amir

Alansari

Water Treatment Specialist

Andrew
Zengyue

Whelton
Wang

Asst. Professor

Kristofer Isaacson Graduate Students

Heather Himmelberger Director, SW-EFC

Kevin
Ali
Kurt Campanella
Diba
Vause Asset Management Director

Frank Roth

Barry Buchanan Senior Project Manager

Celine
Peter Hyer
Kraft Asset Management Practice Lead

Carrie
Justin Cox
Kauffman Chief Engineer

Murat
Chris
Randall

Engindeniz
Macey
Cooper

Associate Principal, VP
Americas Technical Practice Leader Condition Asses
President

Joanne
Chris

Carroll
Macey

Americas Technical Practice Leader Condition Asses

Joanne

Carroll

Murat
Randall
Corie

Engindeniz
Cooper
Sapp

Associate Principal, VP
President
Principal Management Consultant

Eric

Hersh

Senior Water Resources Engineer

Nissim
Ben

Gore-Datar
Agrawal

Water Resources Consultant
Principal Engineer

Persephene

St. Charles

Nicole
Weston

Williams
Haggen

Lead Engineer
Project Manager

Susan

Donnally

Pipeline Condition Assessment Technical Lead

Parvesh

Dsingh

Condition Assessment Engineer

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Ethan

Tanzi
Vidal

Senior Vice President

Annikki
Gary
Matthew
Katherine
Rupam

Chamberlain
Tilkian
Dickens
Jashinski
Soni

President

Resource Conservation Manager

Jarrett

Kinslow

Senior Project Manager

Praveen

Krishna

Senior Engineer

Benjamin

Finnegan

Matt

Sellers

Robert

Little

National Practice Leader

Helen
Nicholas
Eric

Salama
Puckett
Kong

Civil Engineer, PE
Engineer in Training

Graham

Peaslee

Professor

Kyle

Thompson

Reuse Technologist

Lan

Cheng

Detlef
Chris

Knappe
Bellona

Professor

Tanju
Olga

Karanfil
Morales

VP for Research
Senior Tech

Lisa
Patricia

Campbell
Bolliger

Project Manager/Grant Specialist

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Reinsch

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Santhosh Sekar
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Alicia Smiley PE

Kristy Oates
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Nicholas Ramsey

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Christopher Yannoni Senior Principal

T.J. Stroebel Technical Marketing Leader

John Helf

Francois
James
James
Stephen

Rodigari
Roberts
Perry
Welch

Dir. of Corporate Sustainability & Innovation

General Manager

Ari

Copeland

Ann

Casey

Vice President

Uma

Vempati

Walt

Walker

Water Equity Practice Leader

Katie
Chris

Porter
Moody

Executive Engineer
Regulatory Technical Manager

Samantha

Black

Lauren Vincent	Weinrich Hart	Principal Scientist Vice President
Peng	Dai	PhD student
Simon	Horsley	Water Quality Lead
Pete	D'Adamo	Water Treatment Technical Advisor
Christine Elizabeth	Owen Crafton	Director of Water & Reuse Innovation
Nichole	Sajdak	
Manuel Andrew	Teodoro Bliss	Professor Senior Strategic Communications Coordinator
Katherine	Baer	Vice President, River Programs
Annie Rebecca	Vanrenterghem Raven Slabaugh	Managing Director Drinking Water Practice Lead

Wes	McBride	Division Manager
Chip	Stein	Managing Principal
Can	Xiao	Civil Engineer III* Team Leader
K. Blake	Stark	Senior Manager, Commercial Water
Ronald	Joost	Vice President
Chi Ho	Sham	AWWA President
Michael	Karl	National Utility Optimization Leader

Shannon	Wedding	Water Product Manager
Alex	Puryear	Business Development Manager
Chuck	Hansen	Chairman & CEO
Bruno	Tume	Sales Manager, North America
Nora Ahmad A.	Covy Behroozmand	Project Manager Senior Geophysicist / Managing Consultant
Justin	Bartlett	Project Manager
Sunil	Kommineni	Vice President
Jacob Mark Colin Rajat	Young Beebe Waddell Chakraborti	Principal Engineer Project Manager Sr. Manager, Wtr Svc Engineering Technologist
Marie	Asgian	Superintendent Wtr Dist.

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Greg Baird National Lead(Pb) Service Line Inventory and Repla

Alok Shah

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Tina Chen Customer Service & Billing Supervisor

Tarlan Razzaghi
Veronica Blette

Karen Guz Senior Director, Water Conservation

J.C. Davis Conservation Division Manager

Rebecca	Bowling	
Arthur	Bides	Water/Wastewater Engineer
Charlie	Erwin	
Kelly	Comstock	Project Manager
Steven	Friedman	Senior Project Manager
Peter Ryan	Tymkiw Rhoades	Senior Vice President Senior Project Manager
John	Deignan	Program Manager, Lead Services
Brian	Van Nortwick	Environmental Engineer

Shona Robinson Project Engineer

Vasikan Vijayashanthar PhD Candidate

Ashley Pifer

Siyang Wang Water Engineer

Carrie Knatz Environmental Engineer
Rebecca Peters Project Manager

Seth Fischer
Neil Gardener Principal Process Engineer

Bobby Johnson Manager - Master Planning
Brett Buff
Virginia Walsh

Nick Lewis Engineer

Kristina McGee Director of Engineering - Virginia and Maryland

Gloria Gutierrez Project Manager

Ann McNeill
Virginia Walsh President

Nick Lewis Engineer

Kristina McGee Director of Engineering - Virginia and Maryland

Gloria Gutierrez Project Manager

Ann
Virginia

McNeill
Walsh

President

Nick

Lewis

Engineer

Kristina

McGee

Director of Engineering - Virginia and Maryland

Gloria

Gutierrez

Project Manager

Ann

McNeill

President

Marylia

Duarte Batista

Alshae
Tara

Logan
Randall

Post-doctoral Researcher
Water/Wastewater Engineer

Anjuman

Islam

Juan

Oquendo

Vice President

Josh Jennifer	Braman Lachmayr	Smart Metering Global Implementation Lead Senior Vice President/Area Leader
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Anna	Bryan-Borja	
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Robert	Ryall	Associate Vice President
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Donnell	Duncan	Associate Vice President
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Melissa	Harclerode	Sustainability Discipline Leader
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Lauren	Weinrich	Principal Scientist
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Ruben	Rodriguez	Senior Director, External Communications
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Matt	Corson	Environmental Director
Erik Greta	Rosenfeldt Zornes	Director of Drinking Water Process Technology
Melissa	Harclerode	Sustainability Discipline Leader
Ruben	Rodriguez	Senior Director, External Communications
Matt	Corson	Environmental Director
Erik Greta	Rosenfeldt Zornes	Director of Drinking Water Process Technology
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Verena	Winter	Project Engineer/Project Manager
Katie Alex J. Ryan	Hay Waite Moyers	Process Engineer Process Engineer Senior W/WW Engineer

Richard Liz	Cavagnaro Taylor-Edmonds	Director of Marketing Post-Doc
Craig	Hannah	Eng. Mgr-Water Infrastructure Technology Team
Joseph	Ball	Director, Global Smart Metering Practice
Brian	Schade	Manager Meter Services
Joseph	Dryer	
Craig William Chris David	Hannah Whittom Macey Kozman	Eng. Mgr-Water Infrastructure Technology Team Sr. Product Manager Americas Technical Practice Leader Condition Asses
Robert Gregg	Walker Horn	Vice President - Technical Development & Standards Vice President - Technical Resources

Mehdi
Brent
John

Zarghamee
Keil
Bambeil

Senior Principal
Corporate Chief Engineer

Will
David

Jernigan
Sayers

CFO, Director of Water Efficiency
Manager

Tory
Reinhard

Wagoner
Sturm

President

Daniel

Rice

Casey
Rajat

LeBlanc
Chakraborti

Senior Civil Engineer
Engineering Technologist

Daniel
Yvonne

Haddock
Heaney

Director of Water Utility Services

Andrew	Whelton	Asst. Professor
Max	Herzog	Program Manager
Brent	Alspach	Director of Applied Research
Bill Micah Daniel	Hoffman Reed Nix	President Water Conservation Manager Public Utilities Operations Manager

Aubrey	Spear	Director of Water Utilities
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Jason	Brodigan	Assistant Director - Engineering
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Clayton

Barnard

Engineer

Jason

Brodigan

Assistant Director - Engineering

Bill
Micah
Daniel

Hoffman
Reed
Nix

President
Water Conservation Manager
Public Utilities Operations Manager

Aubrey

Spear

Director of Water Utilities

Qun	He	Vice President
Michael	Hwang	Process Engineer & Technologist
Stephen Issam	Timko Najm	President
Rosanne	Weston	Engineering Manager
Mahboubeh Clementine Ufuk	Mirzaei Stip Erdal	Ph.D. student Water Sector Specialist Water Reuse Director
Anna	Ness	
Alan	Domonoske	Vice President
Sunayna Blake	Dasgupta Harvey	Scientist
Varenya	Mehta	Graduate Engineer III

Sarah

Hayes

Trenton

Jackson

Environmental Engineer

Adam
Zaid

Carpenter
Chowdhury

Mgr of Energy and Environmental Policy
Director, Wtr Technology

Christine

Owen

Director of Water & Reuse Innovation

Adam

Carpenter

Mgr of Energy and Environmental Policy

Susheera
Zaid

Pochiraju
Chowdhury

Director, Wtr Technology

Christine

Owen

Director of Water & Reuse Innovation

Michelle Wirth Director of Production

Robert Hulsey Associate Vice President

Andrew
Timothy Ohrt
 Maynard Senior Engineer

Paul
Theresa

Tiao
Robey

Partner
Technology Director

Charlene
Alex

Kormondy
Shannon

Physical Scientist
Vice President Sr. Director, Northwest Pacific Wat

Tom

Kennedy

General Manager

Jennifer	Muir	Engineer
Marc	Morin	Senior Associate
Greg	Baird	National Lead(Pb) Service Line Inventory and Repla
Dave	Fox	Consultant

Robert	Ryall	Associate Vice President
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Angela	Bricmont	Chief Finance Officer
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Usha	Sharma	Treasurer
Laura	Landes	Research Manager

Shilo	Williams	
Neil	Stewart	Water Resources Engineer
Todd	Brewer	Senior Manager - Partnership Programs

Stephen

Barr

Manager, Community Engineering Programs

Company**Session Code**

North Carolina State University AEESP-01

Greeley and Hansen LASTDROP

World Bank LASTDROP

Las Vegas Valley Water LASTDROP01

Greeley and Hansen LASTDROP01

World Bank LASTDROP01

Garver Consulting MON01-01

MON01-02

Black & Veatch MON01-03

California State Water Resources Control Board MON01-04

MON01-05

MON01-05

California State Water Resources Control Board MON01-05

Garver Consulting MON01-05

Black & Veatch MON02-01

Arcadis, Inc. MON02-02

Minneapolis Water Works MON02-03

HDR Engineering, Inc. MON02-04

Garver Consulting MON02-05

Great Lakes Water Authority MON02-06

Carollo Engineers MON03-01

CDM Smith MON03-02

CDM Smith MON03-03

Black and Veatch MON03-04

Arcadis U.S., Inc. MON03-05

City of Santa Monica MON03-06

Arcadis MON04

AECOM MON04

Voda AI MON04

Fracta MON04

Toronto Water

MON04

Arcadis

MON04-01

AECOM

MON04-02

Voda AI

MON04-03

Fracta

MON04-04

Toronto Water

MON04-05

AECOM

MON04-06

Voda AI

MON04-06

Fracta

MON04-06

Toronto Water

MON04-06

Badger Meter

MON05-01

VertexOne

MON05-02

City of Buda

MON05-02

MON05-03

San Antonio Water System

MON05-04

WSP USA MON06-01

Advanced Valve Technologies MON06-02

Aegion MON06-03

Arcadis, US Inc. MON06-04

Freese and Nichols, Inc. MON06-05
Tualatin Valley Water District MON06-06

Hazen and Sawyer MON07-01

Cornwell Engineering Group MON07-02
WQTS, Inc. MON07-03
Cornwell Engineering Group MON07-04

Hazen and Sawyer MON07-05

Cornwell Engineering Group MON07-05
WQTS, Inc. MON07-05
Cornwell Engineering Group MON07-05

Corona Environmental MON08-01

Eurofins Eaton Analytical, LLC MON08-02
MON08-03

AECOM MON08-04

HDR Engineering MON08-05

Kimley-Horn MON08-06

Hazen and Sawyer, P.C. MON09

City of Houston MON09

City of Houston MON09

Arcadis MON09
Denver Water Board MON09

Freese and Nichols. Inc. MON09

Hazen and Sawyer, P.C. MON09-01

City of Houston MON09-02

Arcadis MON09-03
Denver Water Board MON09-04
CDM MON09-04

Freese and Nichols. Inc. MON09-05

Hazen and Sawyer, P.C. MON09-06

Arcadis
Denver Water Board

MON09-06
MON09-06

Freese and Nichols. Inc.

MON09-06

City of Houston
Cobalt Water Global

MON09-06
MON10-01

Jacobs

MON10-02

Carollo Engineers, Inc.
GHD

MON10-03
MON10-04

MON10-05

Brown and Caldwell
US EPA
USEPA Office of Water

MON10-06
MON11-01
MON11-01

CT Dept. of Public Health
Senate Committee on Environment and Public Works
Environmental Protection Agency- MC 4204M
Council of Infrastructure Financing Authorities (CIFA)

MON11-01
MON12-01
MON12-01
MON12-01

Houston Public Works
Harris Galveston Subsidence District

MON13-01
MON13-02

North Fort Bend Water Authority

MON13-03

Hampton Roads Sanitation District
USGS California Water Science Center

MON13-04
MON13-05

Houston Public Works
Harris Galveston Subsidence District

MON13-06
MON13-06

North Fort Bend Water Authority

MON13-06

Hampton Roads Sanitation District

MON13-06

Corona Environmental

MON14-01

MON14-02

Ramboll

MON14-03

CDM Smith

MON14-04

Kimley-Horn & Associates

MON14-05

University of Toronto

MON14-06

Surveillance One

MON15

Curriculum Vitae

MON15

Advanced Flow Solutions

MON15

ASCE/EWRI WISE SC

MON15-01

Surveillance One

MON15-02

Curriculum Vitae

MON15-03

Advanced Flow Solutions

MON15-03

Surveillance One

MON15-03

DC Water

MON16-01

Central Arkansas Water

MON16-01

Milwaukee Water Works

MON16-02

MON16-02

Milwaukee Water Works

MON16-02

Valley Sanitary District

MON16-03

Stantec
Confluence Engineering Group, LLC

MON16-04
MONDAYKEYNOTE-01

NASA
Garver

OGS-01
PCW01-01

Hazen and Sawyer
Conway Corporation
EPA Office Research & Development
Michael J. McGuire, Inc.

PCW01-02
PCW01-03
PCW01-04
PCW01-05

Yokogawa Fluid Imaging Technologies

PCW01-06

PCW01-08

ESPRI
Ctrs for Disease Control & Prevntn

PCW01-09
PCW01-10

The Water Research Foundation
Garver
Confluence Group

PCW01-11
PCW01-13
PCW02-01

East Bay Municipal Utility District
City of Henderson
Confluence Group
Aqua America, Inc.
Denver Water

PCW02-02
PCW02-03
PCW02-05
PCW02-07
PCW02-08

Burgess & Niple, Inc.

PCW02-09

Arcadis
Confluence Group
Pennsylvania American Water

PCW02-09
PCW02-10
PCW03-03

WSSC Water

PCW03-04

Moulton Niguel Water District

PCW03-05

Moulton Niguel Water District
Helix Water District

PCW03-05
PCW03-07

Tarrant Regional Water Dist.

PCW03-08
PCW03-09

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Gannett Fleming

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Bio

Detlef Knappe is the S. James Ellen Distinguished Professor of Civil, Construction, and Environmental Engineering at NC State University. He received his BS, MS, and PhD degrees from the Department of Civil and Environmental Engineering at the University of Illinois at Urbana-Champaign, and he joined the NC State faculty in 1996. He is the Deputy Director of NC State's Superfund Center "Environmental and Health Effects of PFAS" and is a member of NC State's Center for Human Health and the Environment. Detlef's research interests broadly encompass drinking water quality and treatment. He is a Trustee of the American Water Works Association's (AWWA's) Water Science and Research Division, he is a member of the North Carolina Secretaries' Science Advisory Board, Andrew W. Richardson is the former Chairman and Chief Executive Officer of Greeley and Hansen. He has authored over 70 technical papers and made numerous presentations at national and international water and

Andrew W. Richardson is the former Chairman and Chief Executive Officer of Greeley and Hansen. He has authored over 70 technical papers and made numerous presentations at national and international water and

Eric is the Water and Energy Practice Leader where he specializes in delivering sustainable infrastructure solutions through optimized hydraulic systems and optimized treatment processes. Eric was one of the world's first water professionals to be certified as a Pump Systems Assessment Professional (PSAP) through the Hydraulics Institute. He also patented two zero liquid discharge brine management systems, of which one was awarded the 2011 AZ Water Reuse Project of the Year Award.

Alma Beciragic completed her PhD in Environmental Sciences and Engineering at the UNC Chapel Hill Gillings School of Global Public Health in Fall 2020, and then joined Arcadis. Her dissertation focused on using analytical

Alma Beciragic completed her PhD in Environmental Sciences and Engineering at the UNC Chapel Hill Gillings School of Global Public Health in Fall 2020, and then joined Arcadis. Her dissertation focused on using analytical tools to better understand NF membrane leachates and their potential to contribute to disinfection byproduct formation. Alma is interested in analytical chemistry, drinking water quality, water treatment technologies, and advancing stewardship through water reuse research.

Eric is the Water and Energy Practice Leader where he specializes in delivering sustainable infrastructure solutions through optimized hydraulic systems and optimized treatment processes. Eric was one of the world's first water professionals to be certified as a Pump Systems Assessment Professional (PSAP) through the Hydraulics Institute. He also patented two zero liquid discharge brine management systems, of which one was awarded the 2011 AZ Water Reuse Project of the Year Award.

Dr. Jeff Neemann, P.E. is the California Area Director for Black & Veatch in Irvine, CA. His background is in the development and application of advanced treatment technologies with experience in evaluation, pilot testing, design, and operation. He also has experience in developing and applying big data and technology solutions for the water industry. He received his B.S. in Civil Engineering and his M.S. in Environmental Engineering from Missouri University of Science and Technology and his D.E. in Civil Engineering from the University of Kansas. He is a licensed engineer in the state of Kansas and a member of IUVA, IOA, IWA, WEF and AWWA.

Mr. Azagra leads Arcadis' Business Advisory Services in North America, which comprises a national team of professionals focused on helping water utilities navigate and solve complex business problems. Mr. Azagra has over 20 years of management consulting experience and has worked on strategic business plans, asset management programs, and digital transformation efforts for diverse water utilities.

Erin Lansey has over 14 years of experience in the water industry, working for both municipalities and consulting firms. She has experience in treatment, storage and distribution of both drinking and reclaimed water. Erin has been working on the Tucson Water Reservoir Program with HDR for the last seven years and has worked on over 18 tank and reservoir rehabilitations.

Eric is the Water and Energy Practice Leader where he specializes in delivering sustainable infrastructure solutions through optimized hydraulic systems and optimized treatment processes. Eric was one of the world's first water professionals to be certified as a Pump Systems Assessment Professional (PSAP) through the Hydraulics Institute. He also patented two zero liquid discharge brine management systems, of which one was awarded the 2011 AZ Water Reuse Project of the Year Award.

Dr. John Norton is Director of Energy, Research, and Innovation for GLWA, a combined water/wastewater utility in Southeast Michigan. GLWA treats more than 40% of the water, and 30% of the wastewater, for the state of Michigan. Norton leads GLWA's research efforts to understand, extend, and enhance its linear and process

John Rehring is a Vice President with Carollo Engineers in Broomfield, Colorado. For 30 years, he has focused on water supply and reuse planning and implementation across the Southwest. He is a Past President of WaterReuse Colorado and the Rocky Mountain Water Environment Association, and serves on the Board of the WaterReuse Association. In recent years, he has managed two direct potable reuse demonstration projects, the City of Aspen's Integrated Resource Plan, and the Denver One Water Plan.

Ms. Bywater is a water resources engineer with 15 years of experience in integrated water resource planning. She is one of CDM Smith's premier water resource planning experts who has hands-on experience developing decision-support models and processes for increased water source sustainability and reliability, as well as developing a roster of plans and studies for an extensive array of entities across the United States.

Dan Rodrigo is CDM Smith's global One Water practice leader. With over 33 years of experience in integrated water resources management, Dan has directed over two dozen One Water plans and studies throughout North America and abroad with a focus on sustainability and climate resiliency. Using scenario planning and systems thinking, he has been able to capture uncertainties and develop robust multi-purpose strategies using adaptive management for water agencies. Dan is a member of AWWA's Technical Advisory Workgroup for Climate Change

Francesca DePrima is a Water Engineer at Arcadis, based out of Los Angeles. She graduated from UCLA with a BS in Environmental Science and an MS in Civil Engineering, with her college research focused on green infrastructure and emerging contaminants in stormwater treatment. She has experience working on a variety of projects spanning from water resources management and drought planning to drinking water treatment. Her interests lie in drought resiliency and potable reuse.

Mr. Sunny Wang is currently the Water Resources Manager at the City of Santa Monica. Sunny holds a B.S. and M.S. in Environmental Engineering from the University of California, Riverside. He has over 20 years of experience in design and implementation of conventional and advanced water treatment technologies over a wide range of applications including desalination and potable reuse. He is currently leading the City's efforts to diversify its water supply portfolio through implementing innovative projects for potable reuse and restoring impaired local groundwater supplies through advanced treatment technologies.

Celine Hyer is the National Water Conveyance Practice Leader for Arcadis US and is located in Tampa Florida. She has a B.S. in Chemical Engineering and an M.S. in Engineering Management from Florida Institute of Technology. Celine has 32 years of experience in Engineering with 22 years that are directly related to advanced asset management program implementations including strategy and risk based planning for pipelines pumping and treatment facilities. Ms. Hyer currently serves as the Vice Chair of the AWWA Asset Management Committee, the Chair of the ASCE UESI Asset Management Division, and is a member of the ASCE Committee on

Celine Hyer is the National Water Conveyance Practice Leader for Arcadis US and is located in Tampa Florida. She has a B.S. in Chemical Engineering and an M.S. in Engineering Management from Florida Institute of Technology. Celine has 32 years of experience in Engineering with 22 years that are directly related to advanced asset management program implementations including strategy and risk based planning for pipelines pumping and treatment facilities. Ms. Hyer currently serves as the Vice Chair of the AWWA Asset Management Committee, the Chair of the ASCE UESI Asset Management Division, and is a member of the ASCE Committee on

Michelle Camp has been forging partnerships with utilities across the US since 2015. Michelle is from Austin, TX and understands the unique challenges facing utilities across Texas and the US, including increased water scarcity, rapid population growth, and more extreme weather. Prior to joining VertexOne, Michelle played a key role in growing the business at WaterSmart Software for nearly 5 years. Michelle graduated from The University of Texas at Austin with a BS in Environmental Science. Michelle also holds a Masters in Environmental Management from Yale University with a specialization in water resource science and management. During her graduate studies at Yale, Michelle gained experience in sustainable water management in the Western US and abroad, which included working for the Murray–Darling Basin Authority in Australia. Michelle enjoys camping & Blake Neffendorf has been with the City of Buda since 2018 and was recently promoted to Assistant Public Works Director. With limited water resources and a rapidly growing community, the City of Buda has been proactive in reducing overall water use through multiple approaches. Blake is currently overseeing the City's Aquifer Storage and Recovery Pilot Well Project and in 2019 managed the replacement of all 4,000 water meters to a new AMI system complete with a WaterSmart Customer Portal. He is also working to expand the City's reuse water system and serves on the Board of Directors for the Alliance Regional Water Authority as Treasurer. Blake previously spent over 10 years working for the Texas Water Development Board in the Groundwater Division as a Program Supervisor overseeing the statewide real-time groundwater monitoring network.

Karen is the Director of Water Conservation for San Antonio Water System (SAWS). In this role she leads a team that deploys conservation programs for residential, industrial, and institutional customers resulting in over one billion gallons of savings each year. Outside of SAWS Karen has served on in roles that include the TCEQ Irrigator Advisory Council, the Smart Water Applications Team (SWAT) of the Irrigation Association, the board of the Alliance for Water Efficiency. Karen is currently the Presiding Officer for the Water Conservation Advisory Council which provides input on conservation progress for the Texas Legislature.

Karen has a Bachelor of Science from the University of Michigan and a Master of Public Administration from the University of North Carolina at Charlotte. She has held a Texas irrigation license for 15 years.

Steve Rugar is the national drinking water market sector leader for WSP USA. He has over 35 years of experience in water utility engineering, in consulting and public utility management. Steve's expertise includes management of capital improvement programs, pipeline design and rehabilitation, asset management, pipe condition assessment, water resource planning, hydraulic modeling, and water loss control. In addition to his national role at WSP, Steve is also the lead designer of public water supply work performed from our Shelton, CT office. He is an active member of the American Water Works Association (AWWA) since joining in 1994, and is a past chair of the Connecticut Section, and currently serving as co-chair of the CT AWWA Education and Program Committee. Steve also serves on the Water Loss Control Committee, helping with drafting of updates for the fourth and fifth editions of Manual M36, "Water Audits and Loss Control Programs". Steve has also been active as a project advisory committee member with the Water Research Foundation, serving on a variety of projects examining various aspects of distribution system efficiency, water loss and pipe condition assessment.

Steve received his B.S. from the University of Connecticut in 1987. Steve is a licensed professional engineer in CT, MI and NY. He lives with his wife and family in Connecticut.

Shawn Petty is the VP of Global Sales at Advanced Valve Technologies (AVT). Shawn's focus, alongside leading his team, is to support utility companies around the world to identify potential efficiencies that can be implemented during the repair and maintenance of their distribution systems. He has been with AVT for nearly a decade but his experience in the water industry extends to nearly 20 years. Shawn is a true subject matter expert in the field of insertion valves and has spoken widely about the benefits of ground-breaking technology.

Steve Soldati is a registered civil engineer in Florida and California. He attended the California State University, Chico, where he earned his Bachelor of Science in Civil Engineering. He has over 12 years of industry experience working in construction, design, sales, business development, project & program management, and asset management in both the private and public sectors. He brings a well-rounded perspective to the challenges that many agencies face with asset management and aging infrastructure.

Paul Smith graduated from the University of Texas at San Antonio with his bachelor's in civil engineering in December 2014 and a master's degree in civil engineering in 2020. Paul has 7 years of professional engineering in water resources engineering in water supply, infrastructure and distribution systems, wastewater collection systems, water and wastewater facilities, storm water collection systems design, and storm water modeling and analysis. Paul is currently a staff water engineer at Arcadis.

Mr. Engelskirchen has a BS in Civil engineering from Texas A&M University and is a licensed professional engineer in Texas. He specializes in design and construction management of water transmission infrastructure. He serves as a project manager at Freese and Nichols, Inc. and has been with FNI for ten years.

Dr. Blute is based in Los Angeles serves as Hazen and Sawyer's Drinking Water Practice Lead for the West Region. She has over 25 years of experience in drinking water treatment, specializing in emerging contaminants and corrosion control. Nicole earned her Ph.D. in Environmental Engineering from the Massachusetts Institute of Technology (MIT), a B.S. in Environmental Science and a B.A. in Chemistry from the University of Rochester in New York. She served as a Trustee in the AWWA Water Science and Research Division for six years,

Dr. David Cornwell is CEO of Cornwell Engineering Group, a consulting engineering firm specializing in water. He received his doctoral degree from the University of Florida where he is currently an Adjunct Professor. He is working closely with many utilities, the Water Research Foundation and AWWA on reducing lead levels in water. Dr. Cornwell has over 50 publications, has served on many AWWA committees and is recipient of the A. P. Black Research Award, the WRF Research Award and AWWA Honorary Member Award.

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Dr. Samson is a Water Process Engineer with Corona Environmental Consulting. She is a Ph.D. from the University of Colorado Boulder Environmental Engineering Program with a focus in source water quality and drinking water treatment processes and in statistical modeling. She has experience in quality assurance and control, data management, and meaningful analysis of large drinking water occurrence data sets, with an emphasis on disinfection byproduct occurrence and related water quality and treatment data.

Dr. Yongtao (Bruce) Li is the Technical Director of Eurofins Eaton Analytical, LLC. He earned a Ph.D. in analytical chemistry from Southern Illinois University at Carbondale and has had over 25 years of experience in water quality research and testing industry and authored/coauthored over 100 analytical methods. He is an active member of the American Water Works Association (AWWA) and American Chemical Society (ACS).

Mr. Curran is a professional engineer with more than 25 years of experience in water, wastewater and environmental engineering. Over the past 15 years, Mr. Curran has been involved with many treatability, design and construction projects for the removal of PFAS from surface and groundwater potable water supplies, impacted groundwater, leachate, wastewater and stormwater systems. He presently leads the national water PFAS practice for AECOM and is advancing innovation in PFAS management strategies in both the water and wastewater sector including novel technical approaches and the coupling of destruction technologies to deliver Alejandra holds dual bachelor's degrees on Chemical and Environmental Engineering from the University of Arizona and has 3 years of experience in engineering and design of water and wastewater treatment systems, water distribution pipelines, and collection systems. Her experience includes performing rapid small-scale column testing and pilot-testing for PFAS and 1,4-dioxane removal, wastewater process modeling, and developing drawings and technical specifications for water/wastewater projects.

Tatiana Konstantis has earned a bachelor's degree in Materials Science and Engineering and master's degree in Environmental Engineering from the University of Florida. Tatiana is currently a young professional and holds an engineering intern certification within the State of Florida. Her experience in the water treatment field includes exposure to planning, design, permitting, and pilot testing of treatment facilities in addition to pipeline design. Tatiana has been involved with AWWA during both her academic and professional careers. She is currently Membership Chair of Region III in Florida. In addition, she is an active member of AMTA and is involved within the organization's YP committee.

Ms. Roberts has over 19 years of experience in water distribution system hydraulics and water quality. Her areas of expertise include master planning, developing and calibrating hydraulic models, distribution system operations, analyzing water quality, and pipeline assessment and prioritization. Meg currently serves as Hazen's Distribution System Services Leader and as a Trustee for the American Water Works Association Water Quality &

Mitchell Ramon is a supervising engineer with Houston Water. He received a Civil Engineering BS degree from the University of Texas at Austin and worked in the private sector as an environmental consultant prior to joining Houston Water. He has worked in with Houston Water for 13 years and his experience includes hydraulic modeling, distribution water quality management, regulatory compliance, water resource planning and asset management. Mitchell actively participates in AWWA's Asset Management Committee, Water Resources Planning & Management Committee and Engineering Modeling Applications Committee.

Mr. Tripathi has more than 15 years experience in hydraulic modeling, Water/wastewater System evaluation and, Master Planning . He has BE in Civil engineering, M.SC in Water Resource Engineering and On-going PhD in Water Engineering from Texas A&M University. He is serving as a managing engineer in water planning group in Houston Water and is a committee member of AWWA's Digital Twin and Engineering & Modeling Committee. He is known leader in process automation and adopting new technology (Machine Learning/ AI, Digital Twin) in Jim serves as the Global Director for Water Optimization at Arcadis. He is the Vice-Chair of the AWWA Engineering & Construction Division, and Chair of the AWWA Digital Twins Committee with a background in engineering, planning, utility operations, intelligent water, and artificial intelligence.

Scott Cole received a BS in Civil Engineering from University of Missouri-Rolla and a MS in Engineering Management from the University of Kansas. Scott specializes in hydraulic modeling, master planning, and asset management of water and wastewater systems. He has more than 21 years of industry experience. He is currently a Vice President at Freese and Nichols, Inc. in Fort Worth, TX. Scott has led more than 100 water and wastewater infrastructure studies, master plans, capital improvement plans (CIPs), and cost recovery studies. He a member of the American Water Works Association's (AWWA) Engineering Modeling Applications Committee that establishes standards for hydraulic modeling and co-author of AWWA's M32 Computer Modeling of Water

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Kim Ervin is Jacobs' Global Technology Leader for Master Planning and Applied Digital Tools, responsible for technology application, monitoring industry drivers, and developing solutions to some of our clients toughest challenges. She specializes in water quality and water treatment planning, alternatives evaluation, bench and pilot testing, design, and construction. Kim is the Chair of the AWWA Disinfection Committee.

Kyle Thompson is a Reuse Technologist and Emerging Technologies Lead at Carollo Engineers. His areas of expertise include PFAS, potable reuse, and machine learning. Kyle received his BS in environmental engineering in 2013 from Missouri University of Science & Technology as valedictorian and with honors. He received a Master of Science in Civil Engineering and PhD in Environmental Engineering from the University of Colorado Boulder. Kyle previously worked as postdoctoral researcher at the Southern Nevada Water Authority. Kyle is a registered Professional Engineer in the state of Nevada.

Karl San Luis has worked for the water industry for over 10 years, focusing on advanced analytics solutions and applications of risk assessment towards infrastructure asset management.

Jamie is a civil engineer with 15 years of experience, managing water resources projects for a diverse set of clients and partners throughout the U.S. Her experience includes remote sensing, advanced analytics, internet-of-things application, watershed planning, integrated water resource management, numerical modeling and analysis, surface water quality, and stormwater management. Jamie has combined traditional engineering methods with innovative analysis and implementation strategies to plan, design, and deliver cutting-edge solutions. She is currently Brown and Caldwell's National Analytics Engineering Lead, bringing big data analytics

Lori Mathieu is a Public Health Branch Chief with the Connecticut Department of Public Health's Environmental Health and Drinking Water (EHDW) Branch. The EHDW Branch is responsible for state and federal regulatory oversight and technical assistance for the state's 2,500 public drinking water systems and a variety of environmental health programs.

Branch programs involve regulatory oversight and enforcement, technical expertise and assistance, professional licensing and certification in the public health areas of public and private drinking water, public pools, food, lead, asbestos, radon, septic systems, occupational health, toxic hazard assessment/toxicology, emergency spill response, state salt water beach water quality testing, and environmental health tracking. Branch staff work in partnership and collaborate with numerous stakeholders including federal, state, regional and local leaders and agencies, as well as various non-governmental groups and associations.

Lori currently serves as the DPH appointed representative to the Water Planning Council, the State Drought Interagency Team, and currently serves as the 2022 President to the Association of State Drinking Water Administrators. Further represents DPH on a variety of drinking water related Committees and serves as the Chair of her town's Inland Wetland Agency.

During COVID19 and since March 2020, Lori has worked with DPH leadership and the DPH Incident Management Team to lead/foster partnerships and public health involvement to continuously address issues related to Reopening, which includes: Education and School Reopening, Business Sector Rules, local health assistance with Sector rule input, concerns, enforcement, education and assistance. Further, Lori has lead COVID19 information sharing Webinars for public water systems, environmental labs and certified water operators

As Director of Houston Water, Ms. Forrest is responsible for the operation and maintenance of City of Houston's regional water and wastewater utility systems. She leads a staff of over 1500 with an annual capital and operations and maintenance budget of over \$657 million.

Prior to her career in public service, Ms. Forrest spent 15 years, as an Engineer, in the private sector developing processes to ensure compliance with environmental regulations, permits and corporate standards. She holds a Bachelor of Science in Chemical Engineering from University of South Carolina.

Yvonne was the 2020 recipient of the AWWA Dr. John L. Leal award.

Alia Vinson, Partner, Allen Boone Humphries Robinson, LLP

Ms. Vinson's practice focuses on public law and finance, and she represents special purpose districts. She is the Vice Chair of the Region 6 San Jacinto Regional Flood Planning Group, and serves on the Boards of the Texas Water Conservation Association, West Houston Association, and Scenic Houston. She is a graduate of the University of Chicago College and Law School.

Dan Holloway is a Hydrogeologist for the Hampton Roads Sanitation District. He obtained his BS in geology from James Madison University and MS from Old Dominion University. Prior to HRSD, Dan worked for 20 years as a hydrogeologist for CH2MHILL/Jacobs where he led various groundwater supply efforts including groundwater investigations, supply development, withdrawal permitting, ASR investigation projects, design of well facilities and operation and maintenance for large municipal withdrawals as well as small community water systems. Over the past six years he worked with HRSD on the development of the Sustainable Water Initiative for Tomorrow, an approximately 100 MGD Managed Aquifer Recharge initiative.

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Kirsten is a PhD candidate from Peng Group at the University of Toronto. Her group's research centers around environmental toxicological chemistry wherein Kirsten studies the interactions of unknown cysteine-reactive DBPs to the human proteome. In her spare time, she enjoys gardening, in-person dining, spending time
Antony Gibson is a water treatment technology specialist with Ramboll Water, based in Australia. Before joining Ramboll in 2020, he served as Chief Operating Officer with PWN Technologies, where he successfully delivered several large drinking water plants, including the worlds' largest ceramic microfiltration plant in Singapore. In previous roles, Antony was responsible for manufacturing, marketing and research & development of the MIEX® ion exchange resin and systems globally.

Dr. Ibrahim Abusallout is an Environmental Engineer and Scientist @ CDM Smith, where he works in multiple Water Research Foundation projects for PFAS detection in wastewater across US. He previously worked as postdoc at the University of Nevada at Reno, where he conducted multiple investigations to examine DBP and NDMA precursors in wastewater as well as detection and removal of aqueous and volatile PFAS from the environment. In his PhD, Dr. Abusallout focused on developing water treatment solutions for rapid removal of DBPs for direct portable reuse using advanced oxidation/reduction processes.

Lance Littrell has earned a bachelor's degree in Mechanical Engineering from Old Dominion University and a master's degree in Business Administration from the University of Central Florida. Lance currently holds a professional engineering license in multiple states along with additional certifications in PLC programming, project management and multiple operator training courses. Lance Littrell brings extensive experience in the water treatment field in both conventional and high-end water treatment. He has served multiple roles both in engineering and construction of water treatment plants in Florida, across the nation and abroad. This experience includes engineered planning, design, permitting, and construction, as well as startup and troubleshooting of treatment facilities. With his hands-on experience, Lance brings an engineering approach rooted in practical

Lisa Stone is the Chief People and Inclusion Officer and Executive Vice President of People and Talent, where she is accountable for developing and executing the People and Inclusion strategy for DC Water. Lisa has over 20 years of leadership experience in Human Resources, specializing in: human capital change management, leadership development, and diversity & inclusion. Prior to joining DC Water, Lisa worked at HSBC, AOL Time Warner, and Freddie Mac, supporting both international and domestic organizations. Lisa facilitates several diversity leadership trainings and Webinars for a variety of organizations including:

• American Water Works Association (AWWA)

• The National Association of Clean Water Agencies (NACWA)

• The National Society of Black Engineers (NSBE)

• The National Association of Black Accountants (NABA)

• As well as several nonprofit organizations: Suited for Change and Northern Virginia Family Services (NVFS)

Lisa enjoys scuba diving and world traveling. Her latest trips: Australia, New Zealand, Ghana, Colombia, and Russia. Her favorite quote is:

“Congratulations! Today is your day. You're off to Great Places! You're off and away!” - Dr. Seuss

Tad Bohannon is CEO of Central Arkansas Water (CAW). Under Tad's leadership, CAW has been recognized as a global leader in financial reporting, community partnerships, sustainability, education, regionalism, watershed management, and canine leak detection. Tad serves on the Board of Directors of AWWA, ARWO, the Southwest Section of the AWWA, and the Little Rock Workforce Development Board. He is a frequent speaker on leadership, Arkansas history, and water utility issues. Tad holds degrees from Hendrix College, UALR School of Business Administration, and the University of Arkansas. Tim Garczynski is the Water Distribution Manager with the Milwaukee Water Works. Tim focuses on quality improvement, organizational excellence and performance measurement. Tim is also an American Society for Quality-Certified Manager of Quality/ Organizational Excellence and is a Wisconsin Certified Public Manager.

Over the past 15 year, Aaron Saeugling has been working with nonprofit and governmental entities to develop systems and strategies to optimize their capacity to provide services and benefit the public. This work focuses on designing equitable organizations so that each aspect positively reinforces each other. He works to implement equitable organizational systems that develop workforce, assess organizational work, advance performance, and increase efficiencies and organizational financial health. These systems are backed by rigorous data analysis dedicated to achieving outcome goals benefiting the public's well-being.

Aaron received a bachelor's degree in Sociology from the University of Iowa, a public policy/community focused Master's of Social Work from the University of Wisconsin-Madison, and also received a master's of science in Public Policy and Management from Carnegie Mellon University.

Beverli A. Marshall is a 25-year veteran in state, county, city, and special district agencies. She has over 12 years of experience in the wastewater industry and over 20 years in public sector budget, labor relations, and policy administration. She is currently the General Manager of a wastewater special district in Southern California. She has a BA in Sociology, a Master of Public Administration, and is a doctoral candidate working toward a Doctorate in Business Administration. Beverli is a ICMA Credentialed Manager and a CSDA Certified Special District Manager.

As a neurodivergent individual, she advocates for, and is a public speaker on, the need for diversity, acceptance, and inclusion in the workplace. Her dissertation research topic is how employment programs that target and serves as executive sponsor for internal employee resource group (ERG's). As a Master Compliance Administrator, she's committed to nurturing diversity and inclusion within the transportation industry. Her team provides resources to internal project teams and their consultants to make certain they not only comply with the required participation goals but thrive in the industry long term. <https://www.linkedin.com/in/carla-artis-env-sp-mca-66a26332/>

Scientific discovery is one of humanity's most important endeavors. Using the tools of exploration, we can better understand our world and our universe and ultimately learn more about ourselves. All discovery is interconnected, and no important question stands alone. As NASA's Associate Administrator for the Science Mission Directorate, Dr. Thomas Zurbuchen is tasked with helping us answer some of humanity's biggest questions: Where did we come from? Are we alone? How does the universe work? Dr. Zurbuchen is well versed in the practice of asking difficult questions that help us seek interconnected answers leading to real world impacts. He is keenly interested in innovation and how leadership is developed and how the pursuit of excellence can help change the world.

Growing up in Switzerland, Dr. Zurbuchen was a keen observer of the natural world from an early age. His curiosity led him to pursue degrees in physics, and he has served on and led innovative scientific teams that have helped enlarge our perspective on the solar system and the universe. Previous points of focus have been the planet Mercury and our Sun. He was also a professor of space science and aerospace engineering at the University of Michigan in Ann Arbor. He was the founding director of UM's Center for Entrepreneurship at the College of Engineering and developed and ran several campus wide innovation initiatives, one of which led to the top-ranked undergraduate entrepreneurship program nationally.

On a daily basis, Zurbuchen works to ensure that NASA's science missions build partnerships across disciplines and with industry and other nations to generate new questions and help advance the frontiers of knowledge and exploration. He brings a wealth of scientific research, engineering experience and hands-on knowledge to NASA's world-class team of scientists and engineers. Zurbuchen sets the NASA Science strategy and inspires the teams to carry it out.

During his career, Zurbuchen has authored or co-authored more than 200 articles in peer reviewed journals in solar and heliospheric phenomena. He earned his doctorate and Master of Science degrees in physics from the University of Bern in Switzerland. His honors include multiple NASA ground achievement awards, induction as a member of the International Academy of Astronautics and the Swiss Academy of Engineering Sciences (SATW), a Zaid Chowdhury is the Water Treatment Practice Leader for Garver. He has more than 30 years experience in Susheera is an engineer with Hazen and Sawyer and works primarily in Drinking Water and Reuse. She has more than 3 years of experience working with water treatment, water quality characterization, analytical method development, T&O occurrence and removal in drinking water utilities.

Polly Barrowman works for Yokogawa Fluid Imaging Technologies (YFT) in the Water Markets Sales position. She has a Master's degree in Environmental Microbiology from the University of Aberdeen, Scotland and an undergraduate degree in Biology from Western Michigan University. Before joining YFT Polly spent twelve years at Eurofins Eaton Analytical as the Microbiology Technical Manager where she oversaw microbiology compliance testing, asbestos testing, algae identification and enumeration (using the FlowCam) and algal toxin analysis amongst other tests. Polly lives in Los Angeles, CA with her husband and six year old daughter and spends her

Hunter is the Laboratory Supervisor, Deputy Quality Control Manager, and Technical Manager of Microbiology and Inorganic Chemistry for the Cypress Environmental Laboratory – City of Wichita Falls, TX. He holds a BS in Biology and an MS in Biology from Midwestern State University. He is a licensed Double A Water Operator and Wastewater Treatment Operator by the Texas Commission on Environmental Quality. He is also a Certified Water Professional and certified in Infrastructure Protection and Infrastructure Disaster Management by the Texas A&M Engineering Extension Service of Texas A&M University. He has worked in the planning and implementation of microbiological and analytical testing for Direct Potable Reuse and Indirect Potable Reuse systems for the City of Wichita Falls, TX. He has also successfully implemented a HAB and Taste and Odor Monitoring Program that has completely eliminated customer complaints for over 5 years. Hunter received the WEF Laboratory Analyst Excellence Award in 2020. He has authored and contributed to Journal AWWA, Opflow, AWWA Water Science, AWWA manuals, Bridges, Lab Matters, LCGC North America, and WE&T. Hunter serves as a TNI Microbiology Expert Committee Member, an APHL Environmental Laboratory Sciences Committee Dr. Tim Bartrand has been an ESPRI research engineer since ESPRI's inception and is ESPRI's executive director. He envisions ESPRI as a meeting ground for all building water system stakeholders to advance research, policy and practice. Since 1997, Tim's professional focus has been drinking water and wastewater processes and public health protection. He has conducted applied research on a wide range of water quality topics and has specialized in disinfection and microbial risk assessment. Tim's current research focus is water quality in building plumbing

Alice Fulmer joined The Water Research Foundation in 2002 after graduating from the University of North Carolina at Chapel Hill with an M.S. in Environmental Science and Engineering. She currently resides in Raleigh, NC and works with water utilities in the Mid-Atlantic and southeastern U.S. as a Regional Liaison. Alice previously worked as a Senior Research Manager for WRF, managing research related to water quality. She serves as a Trustee and Vice President for AWWA's Water Quality and Technology Division and is a member of AWWA, WEF, Zaid Chowdhury is the Water Treatment Practice Leader for Garver. He has more than 30 years experience in

Clifford Chan is the General Manager for the East Bay Municipal Utility District. Previously he served as the Director of Operations and Maintenance for the District. Mr. Chan has been at the District for 25 years and has worked in both the Engineering and Operations and Maintenance departments. Prior to joining the District, he was a consulting engineer and worked on a variety of environmental and geotechnical projects. Mr. Chan received his undergraduate and graduate degrees in civil engineering from the University of California at Berkeley and is a registered Professional Engineer in the state of California.

Mr. Campanella is the Chair of the AWWA Asset Management Committee. He is also Burgess & Niple's Asset Management Director. He helps agencies deliver more and spend less using leading-edge planning tools. He studied under the authors of the International Infrastructure Management Manual in New Zealand in the early 2000's. For 7 years, he was an Assistant Director at Columbus Public Utilities. He has since led AM initiatives for municipalities with populations ranging from 600 to 2.5 million.

Mr. Slaven specializes in asset management services and brings over eighteen years of experience. He has assisted clients with the development of asset management programs that include performance management, risk management, and investment optimization. He is a member of AWWA's AM Committee. He is certified by the Institute of Asset Management (IAM) as an asset management practitioner and recognized IAM Endorsed

Blen is a materials engineer for Washington Suburban Sanitary Commission (WSSC Water) focusing on new material evaluation, existing pipe material analysis, testing and forensic analysis. She has a bachelor's degree in chemical engineering from University of Alberta and master's degree in civil and environmental engineering (water resources) from University of Maryland College Park. Blen is a registered professional engineer in province of Alberta and also has Project Management Graduate Certificate. She has more than 10 years of experience in upstream and midstream business of oil and gas industry and worked as a process and petroleum engineer before transitioning into water industry four (4) years ago. In her previous role, she was involved in managing oil producing reservoirs and led several large development projects such as water flood, miscible flood, blowdown and drilling programs. In addition, performed analysis for corrosion mitigation and cathodic Under the direction of the Director of Engineering, oversees capital engineering, private development, contracts, and records/mapping functions of the District. As part of capital engineering, facilitates prioritization of assets for assessment and rehabilitation/replacement and implementation of the same. Moulton Niguel Water District delivers high-quality drinking water, recycled water and wastewater services to more than 170,000 customers in Laguna Niguel, Aliso Viejo, Mission Viejo, Laguna Hills, Dana Point, and San Juan Capistrano.

Bryan Hong is a Senior Engineer at the Moulton Niguel Water District (MNWD). His role includes acting as project manager and performing oversight of various capital improvement projects, and assisting in the preparation and administration of the District's Capital Improvement Program. Mr. Hong received his undergraduate degree in Civil Engineering from the University of California at Berkeley and is a registered Professional Engineer in the State of California. MNWD delivers high-quality drinking water, recycled water and wastewater services to more than 170,000 customers in Laguna Niguel, Aliso Viejo, Mission Viejo, Laguna Hills,

Courtney Jalbert joined the Tarrant Regional Water District (TRWD) in 2005 working in the Engineering Department, giving her 17 years of experience in the water industry. Her role over the years has included a wide range of projects, including many GIS tools to better assess the pipeline. Her current role as Infrastructure Integrity Manger includes leading the pipeline integrity program with condition assessment, risk prioritization, and predictive maintenance. She is a member of the TRWD Asset Management Team, which is leading the District in best practices for all assets, including vertical assets and horizontal pipeline assets. In addition, she acquired her certification from the Institute of Asset Management (IAM) in November of 2017.

Tom Walski is a senior a product manager at Bentley Systems, Inc. He has 45 years of experience in applied hydraulics. He is author of hundreds of journal papers and conference presentations and is the author or co-author of several books. He is trustee for the Distribution and Plant Operations Division and a longtime member of the Engineering Modeling Applications committee. He won the trivia contest at 2021 AWWA ACE.

Matt is a Principal Planning Engineer and Associate Vice President with Carollo Engineers. He serves as Carollo's Distribution System Modeling and Master Planning Lead. He has more than 20 years experience in the water industry, focusing his career on water system hydraulic modeling, planning, and water supply evaluations. He has worked on projects in over 15 states and 7 countries. He is involved in AWWA's Engineering Management Jim serves as the Global Director for Water Optimization at Arcadis. He is the Vice-Chair of the AWWA Engineering & Construction Division, and Chair of the AWWA Digital Twins Committee with a background in engineering, planning, utility operations, intelligent water, and artificial intelligence.

Ferdous Mahmood is a project manager with Dallas Water Utilities at City of Dallas. He has conducted hydraulic, transient and computational fluid dynamics modeling to evaluate water and wastewater capital improvements projects and to improve operations of water and wastewater systems. He is member of AWWA Engineering Modeling Applications Committee, and has contributed in AWWA Journal and conferences.

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Jim serves as the Global Director for Water Optimization at Arcadis. He is the Vice-Chair of the AWWA Engineering & Construction Division, and Chair of the AWWA Digital Twins Committee with a background in engineering, planning, utility operations, intelligent water, and artificial intelligence.

Dr. Yang has more than 20 years diverse experience in water and wastewater engineering, distribution network modeling, asset management, and risk analysis. Previously before joining AW, he worked as a consultant engineer in AECOM. He holds a computer science master's degree and a PhD degree in environmental engineering from the University of Wisconsin-Madison. He is a Professional Engineer registered in MD, PA, and Seth has over 25 years of experience leading and innovating at water sector utilities. He combines over 15 years of hands-on experience as a former utility General Manager and as an elected board member of a regional water and wastewater utility with an additional 15 years of experience advising several of the largest utilities in the U.S., the U.S. Agency for International Development (USAID), and foreign governments on utility management,

With a career that spans nearly three decades in public service, Kara Shuror currently serves as Deputy Water Director for the City of Fort Worth, Texas, overseeing its Water Customer Care and Management Services divisions. Kara has been with the Fort Worth Water utility for more than 20 years, leading initiatives in organizational development, customer experience, and change management.

At the utility, Kara has also led its financial operations, served as an assistant director for business services, assistant director for water production, and interim water director. She has also provided support for the City of Fort Worth Mayor, City Manager's Office, and even the Police Department, leading the civilian-based administrative services bureau.

Kara earned a bachelor's degree in sociology and a master's degree in Urban Affairs, both from the University of Texas at Arlington. She also mentors and coaches young women nationwide in her volunteer role with Alpha Chi

Jim Ginley is an independent consultant with more than 34 years of experience in the municipal water sector, including more than 16 years on the AWWA staff in Denver and 18 more as a consultant, along with more than 18 years in service as an active volunteer. Ginley specializes in strategic planning, benchmarking, organizational assessments, workshop and session facilitation, and training. Ginley is a Life Member of AWWA (1989) and a WEF member since 2008. He is a member and past chair of the AWWA Strategic Management Practices Committee and serves on the WEF Utility Management Committee. Ginley helped build the EUM framework and serves as an instructor for both AWWA and USEPA in teaching EUM to utility managers across the country. He is a contributing author to AWWA's M5 Manual, as well as other publications. He also developed and co-

Mr. Nagel is the Utility Management Solutions Group Leader for Hazen and Sawyer. Throughout his 26 years working in the industry, he has been responsible for the development and implementation of full-scale asset management programs, strategic business plans, performance management programs and executive dashboard systems, workforce development initiatives, organizational assessments, and workgroup facilitation for municipal utilities within the United States and abroad. Mr. Nagel also has extensive experience as a project manager on financial services projects involving: capital efficiency and prioritization, cost of service and rate determination, revenue bond feasibility assessments, financial feasibility analysis, and utility formation. Mr. Nagel has a BS in Civil Engineering, an MS in Environmental Engineering, an MBA in Finance, and is a registered Professional Engineer. The general manager for South Walton Utility Company located in Miramar Beach, Florida. I have been the general manager for 5 years and have been with South Walton for 15 years. I attended college at Auburn University and the University of West Florida. I am the current model water tower committee chair for FSAWWA Region IX. I was past president of Region IX for 3 years and have served in various committee positions with the Florida Section AWWA. I am the regional emergency response coordinator for the northwest district for Fla WARN and was awarded the President's Award by the National Rural Water Assoc. for my response efforts with Hurricane Michael. I was named volunteer of the year by the State FSAWWA. I am very active with my church and lead a women's bible study ministry as well as teach children's ministry. I am an active volunteer with American Cancer Society and the National Down Syndrome association. I am married and have three daughters and am a proud gigi to 5 beautiful grandchildren. I enjoy Auburn football, fishing, boating and amateur golf. Seth has over 25 years of experience leading and innovating at water sector utilities. He combines over 15 years of hands-on experience as a former utility General Manager and as an elected board member of a regional water and wastewater utility with an additional 15 years of experience advising several of the largest utilities in the U.S., the U.S. Agency for International Development (USAID), and foreign governments on utility management,

managed technical assistance to water utilities and conducts research projects on water quality and treatment. As part of her employment with the State of Utah, Dr. Nieminski served as an Adjunct Associate Professor at Department of Civil and Environmental Engineering at Utah State University and was a member of the College of Engineering Industrial Advisory Board. She received Masters degrees from Warsaw Technical University and the University of Notre Dame and Ph.D. from the Utah State University - all in environmental engineering. Eva's expertise includes many aspects of water quality and treatment, as well as familiarity with small systems. She has organized the Utah Water Quality Alliance that created a venue for 25+ year cooperation between the utilities in Utah and direct application of project findings to improve water treatment plant performance.

She has directed several studies on treatability of emerging contaminants and feasibility of new treatment technologies, conducted research projects for the EPA and the Water Research Foundation, and published over 100 articles. She has served as a reviewer for several scientific journals and as advisor of multiple research projects funded by the Water Research Foundation. Her expertise is regularly sought as a member of Project Advisory Committees for the American Water Works Association and Water Research Foundation, member of Technical Review Panels for EPA, and member of planning committees for several leading industry conferences. She is an active member of American Water Works Association (AWWA), where she has served on the Board of Directors, on Technical and Educational Council, chaired the Water Quality and Technology Division and the Utility Quality Management Committee. She was a member of the AWWA Intermountain Section Board of Directors and served as chair of the Section. For the EPA's Disinfection By-Products and Enhanced Surface Water Treatment Rule Negotiated Rulemaking, and subsequently, the Total Coliform Rule/ Distribution Systems Rule development, she represented the Association of State Drinking Water Administrators on Technical Workgroup and served as the alternate negotiator for the Environmental Council of the States under the Federal Advisory Committee Act. She has served as a member of the US National Research Council of the National Academies on the Committee on Public Water Supply Distribution Systems - Assessing and Reducing Risks, and as a peer reviewer for EPA's STAR - Center for Innovation in Small Drinking Water Systems. In Canada, Dr. Nieminski served on the Alberta Drinking Water Expert Advisory Panel, drafting revised drinking water regulations and was a panelist in Natural Sciences and Engineering Research Council (NSERC) of Canada on the Committee for a Strategic Network grants proposals. Currently she serves at the AWWA Standards Council, Utility Management

providing a softened groundwater supply to the City of East Lansing and Meridian Township, and is certified as an F1 Treatment and S1 Distribution System Operator.

Clyde is a past member of the American Water Works Association Standards Council and Chairs the following committees; 1) the standards committee for the G430 Standard – Security Practices for Operation and Management, 2) the standards committee for Water Softening and Conditioning Chemicals, and, 3) the Water Quality Management Committee. He is also a member of the Michigan Section AWWA Government Affairs Council and the MIWARN Steering Committee.

Clyde is a graduate of Michigan State University with a degree in Mechanical Engineering.

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Martin Moeller Vaerum is a Product Manager whose focus is to expand and develop the brand strategy for Kamstrup Water Metering LLC's software solutions. His expertise areas include data analytics and data communication in general, as well as pressure management and smart water solutions. With a B.Eng. in ICT, and with previous experience as a software developer, Martin is well-versed in how software solutions can fit into the smart water world through best practices. Martin joined Kamstrup in 2018 with a focus on driving the newly

Mark has decades of successful Project Management performance in customer service and IT environments, including AMI projects. Mark has the ability to motivate, integrate, and lead teams to deliver results. He is a skilled communicator adept at translating business needs into technical terms. His vendor and contract management capability has resulted in increased responsiveness and reduced risk and optimizing results through

Nancy McTigue is the Director of Research for Cornwell Engineering Group in Newport News, VA. She earned her Master's Degree in Civil Engineering From Stanford University. She has worked with water utilities addressing issues in water quality, regulatory compliance, research and workforce issues. In recognition of her many years of service to the water industry, she was elected an Honorary Member of AWWA.

Dan is a Drinking Water Specialist in the Black & Veatch Water Technology Group with a wide range of experience in conceptual and detailed design of large and small scale water treatment facilities. He has a proven track record of pilot and bench-scale system operation and design for emerging water treatment technologies and contaminants of concern such as lead & copper and PFAS and is adept at water quality and chemistry evaluation for selection of treatment processes and performance optimization.

Xi Zhao, P.E. is a Water Treatment Engineer located in Freese and Nichols' Houston office. She has over 14 years' experience leading water treatment process design, bench, and pilot studies for treatment process selection and water quality optimization in distribution system in Texas and across the United States. Xi has spearheaded the Lead and Copper Rule Revision (LCRR) committee for the company and coached staffs of municipalities to prepare for LCRR compliance. Xi received her M.S. in Environmental Engineering from North Carolina State University, and B.S. in Environmental Engineering from Beihang University in Beijing. In the recent years, Xi is spending most of her free time supporting wild life by raising two little boys.

Mr. Bruns has 46 years of public and private sector experience in the water sector, and currently serves as the Vice President of Strategic Initiatives for 120Water, an Indiana based technology company that is a key partner with utilities and government agencies across the country.

Prior to joining 120Water Bruns had served as President of Aqua Indiana, managing the Company's water and wastewater operations throughout Indiana.

In September 2019 Bruns was named a Sagamore of the Wabash by Indiana Governor Eric Holcomb in recognition of his career contributions in the water industry.

Frank Natale is the CEO of VADAR Systems, Inc. Over the last 25+ years Mr. Natale has worked with hundreds of municipal collection officials all across the county to implement holistic, technical software solutions for billing and collection systems. VADAR is a premier provider of cloud-based, municipal financial software applications for more than 150 clients in 9 states. VADAR applications manage more than \$5 Billion dollars of municipal

Dr. Bartlett is a Project Manager with KIT Professionals in Houston, Texas. He has performed work on a wide variety of drinking water, wastewater, and reclaimed water projects, with primary focuses on distribution system water quality, source water quality, and water quality modeling. He's been happy to call Texas home since 2014.

Lynn Chamberlain is a Water Conveyance Engineer with Lockwood, Andrews and Newnam, Inc. She has over 15 years of experience with hydraulic and transient modeling as well as stormwater and sanitary sewer modeling. Geneva Caponi is an Engineer in Training in FNI's Water/Wastewater Master Planning Group. She specializes in water hydraulic modeling, GIS integration, data analysis for master planning, CIP development, and asset management. Geneva has worked on multiple water modeling and master planning projects across North Texas and is experienced in water hydraulic modeling software, including InfoWater and WaterGEMS. Geneva is also an active member of the local AWWA chapter.

Javier Esquivel was raised in Del Rio Texas. He attended Texas A&M University and graduated in December 2014 with a Bachelors degree in Biological and Agricultural engineering. He began working with CP&Y in February 2015, and obtained his P.E License in August 2019.

Javier has specialized in wastewater pipeline design and Consent Decree related work over the past 6 years and has worked in all major cities across Texas.

I started my career as an intern mainly focusing on water and wastewater design. I worked as project engineer for sewer rehabilitation projects where the condition was assessed, and rehabilitation/replacement options were examined. Along with the assessment the construction methods, bypass options, and most cost-efficient solution for the client was thoroughly reviewed. I have continued to work on many sewer rehabilitation projects, some on a larger scope of the whole sewer system.

David has 29 years of experience in drinking water treatment and specializes in coagulation optimization. He was schooled in the fundamentals of coagulation in a severe manner by Dr. James Edzwald at the University of Massachusetts, Amherst, and his Ph.D. work became the basis of the first operational guidelines for polyaluminum chloride coagulants. He is currently working on the committee that is updating AWWA's M37 Operational Control of Coagulation and Filtration Processes Manual. David works for Stantec in their Calgary

Tony is a global water treatment technologist for Jacobs Engineering Group. He has been involved in the study, design and construction of many water treatment plants in the US and around the world over the past 35 years. He has extensive experience in conventional water treatment plant design and construction, to improve

Mr. Nattress is a Program Director and Vice President for Jacobs. His more than 20 years of experience spans drinking water and wastewater treatment, focusing on technical areas such as water treatment residuals. He has been responsible for projects spanning from planning through operation and maintenance of small to large facilities, and is currently the program director for a large wastewater treatment plant operation, maintenance, and capital improvement program in Wilmington, DE. He currently serves as the chair of the Water Treatment Plant Residuals Management Committee of AWWA, and has been involved at the section and national level with Mr. Gallelo is an established technology leader with a deep background in vertical software solutions. Throughout his career, Mr. Gallelo has established a track record of building great products, driving an intense customer focus and building global brands. His products have won more than 50 awards including 2 R&D 100s, considered the "Oscars of Innovation" as well as the company level, "Best Work Culture" Timmy Award. He was recently named a SaaS Top 50 CEO. Earlier in his career, Mr. Gallelo held Executive Vice President positions leading product development at Autodesk and Macromedia. Mr. Gallelo holds both BS and MBA degrees from Monmouth University.

Mike Klonsinski is president of Berntsen International. With more than two decades of executive leadership in manufacturing and tech organizations, Klonsinski focuses the company's 50 years of boundary and infrastructure marking expertise on creating smart marking technology. Its InfraMarker® solution improves field asset management by using RFID to connect infrastructure assets to digital platforms. The result streamlines field operations and supports 'Smart City' infrastructure management.

Zach Jaffe is the GIS Coordinator and Project Manager at LandTech consultants. He began his career working in surveying and GIS for water utility operations in for Samco Leak Detection in Texas. Joining LandTech in 2018, he transitioned to a more specialized role in surveying and GIS focusing on 3D data acquisition and GIS implementation and integration. With his field and office work experience, he knows what it's like to be out in the streets at 2 am, in the of dead winter in New England, looking for a valve to fix a leak, and also knows what it's like to be on the back end of operations utilizing some of the most advanced GIS tools from the comfort of Ian Robinson is the President and Chief Operating Officer of BlueConduit. He manages day-to-day operations and strategic decision-making. He co-authored a white paper on data science for LSL replacement with ASDWA and is leading an effort on AWWA's Lead in Water Subcommittee to develop a guide for service line replacement plans. He graduated from the University of Michigan's Ross School of Business and School of Natural Resources and Environment with an MBA/MS. He served as a Peace Corps Volunteer in Ecuador from 2009-2012.

Maury D. Gaston is Vice Chair of the AWWA A21 Committee, overseeing ductile iron pipe and fitting Standards. He is a 40-year veteran of the water industry, AWWA, and American Cast Iron Pipe. Gaston is a mechanical engineering graduate of Auburn University, past Chair of Auburn's Alumni Engineering council, current Chair of the Iron and Steel Council of Manufacture Alabama, and Director and past Chair of the state of Alabama Engineering Hall of Fame. He is also a member of ASCE and a frequent speaker, presenter, and author at various

Timothy Bailey has been working in the water treatment industry for 24 years, beginning his career in Treatment Operations, before going back to school and returning for a 15 year stint as the Laboratory supervisor for the R.E. Badger Filtration Plant in Rancho Santa Fe, California. In 2019 He was promoted to Water Treatment Plant Manager. He currently holds California State T5, D4, and Water Quality Analyst 3 licenses. He also holds a bachelors degree in Environmental Management from Colombia Southern University, as well as two associates degrees in water treatment technology and mathematics.

Tom has over 30 years of engineering experience in designing electrical power and process control systems. He is the Regional Electrical and Instrumentation Lead Engineer for Arcadis for the Water South Group. He has designed the process control systems for approximately 225 water and wastewater treatment facilities in fourteen states.

He is a Senior Member of the International Society of Automation and a Senior Member of the Institute of Electrical and Electronics Engineers (IEEE). He is a member of the Water Environment Federation and contributing author to the Water Environment Federation Manual of Practice - MOP 21, Automation of Wastewater Facilities, and on the AWWA M2 manual author team.

Mr. Powell received a bachelor's degree in Electrical Engineering from the University of Michigan and is a Dr. Burbano is a Program Director and Water Treatment Regional Leader with Black & Veatch in Miami, FL. With over 30 years in the industry, he has delivered a variety of water, wastewater, water reuse, and stormwater projects for municipal, industrial, and federal clients, including design, construction and commissioning of facilities ranging from 20 gpm to 750-mgd in capacity. He has published 50+ technical articles and served as Adjunct Professor of Water/Wastewater Treatment Design at the University of Southern California (USC) and the Veronica Llaneza is a Process Engineer for Jacobs Engineering Group with over 8 years of experience on water treatment-engineering projects including lime softening, low-pressure reverse osmosis and nanofiltration systems. She has experience as both a design and field engineer and is currently working as a regional technical treatment specialist supporting the Operation and Management (O&M) projects in the Southeast region. Veronica holds a Bachelor's, Master's and Doctorate degree in Environmental Engineering from the University of Dr. ShihChi Weng is an environmental Process Engineer/Research Engineer with 4 years field experiences in water/wastewater plant. He is specialized in physical/chemical treatment process. His field experiences include full-scale processes optimization projects and new technology implementation.

Meghan has over 4 years of experience as a water/wastewater engineer at Woodard & Curran in Massachusetts specializing in hydraulic modeling, emergency planning, and drinking water treatment and distribution. An environmental engineering graduate of Worcester Polytechnic Institute, Meghan has a passion for creating symbiotic relationships between natural ecosystems and the built environment and hopes to contribute to the preservation of the planet and the health and longevity of the people who call it home.

Mr. Qureshi has a Masters Degree in Civil Engineering from University of Minnesota and BSCE degree from University of Engg & Technology Lahore Pakistan. He has published 5 papers in JAWWA and 10 in Opflow and one in APWA Reporter Magazine. He has presented papers at 5 previous AWWA Annual Conferences.

Margaret Hunter is currently employed by American Water's Corporate Engineering Department as an Engineering Manager of the Planning Program and Water Conservation. American Water is the most geographically diversified, as well as the largest publicly-traded, United States water and wastewater utility company providing an estimated 15 million people with drinking water, wastewater and other water-related services. Ms. Hunter has over 20 years' experience at American Water in progressively responsible positions involving water resource and capital investment management. Leveraging her demand forecasting and water efficiency expertise, Margaret worked with leadership to develop a companywide water efficiency goal for American Water in 2021. She leads a team that serves as an in-house consultant for American Water for water and wastewater system planning, demand forecasting and conservation, and provides Company-wide technical guidance in these subject areas. As the Water Efficiency ESG Goal Champion for American Water, her focus is on leveraging both the engineering and operating experience gained from all of American Water's water efficiency related projects to guide American Water's subsidiaries to plan cost-effective water efficiency programs. Margaret is also a former trustee of the national American Water Works Association Water Conservation Division, a current member of the Communication Education and Legislation Committee under the Division and a Mr. Wilkinson, age 62, President NO-DES, Inc. Mr. Wilkinson served his country as an AH-64 Apache Helicopter Pilot. Mr. Wilkinson served in the water, wastewater and distribution operations industry for over 30 years. It was here, while conducting water system flushing duties that he began formulating what lead to the patented NO-DES process and method for flushing water distribution systems. Mr. Wilkinson was certified in water, Ed Wicklein has 22 years of experience in design and analysis of hydraulic facilities using numerical models. He has conducted hundreds of computational fluid dynamic (CFD) studies of municipal and industrial water and wastewater facilities. He has additional experience with physical modeling, and field data collection for physical and numerical model calibration. He is actively involved in both the IWA Working Group on CFD Modeling and the Hydraulic Intitule Pump Intake Hydraulics Committee.

Corey Smith, Project Engineer, has five years of experience in the industry, which has been focused on data analysis and testing, process mechanical design, and 3D modeling of public sector water and wastewater projects. He holds a BS in Civil Engineering from Texas A&M University.

Chris Steary serves as the Plant Manager for the Lake Huron Water Treatment Plant for the Great Lakes Water Authority in Fort Gratiot Michigan.

He graduated from the University of Waterloo in 1996 where he earned a Bachelor of Science degree. After working in pharmaceutical R&D and as a forensic DNA analyst for the Detroit Police Department, Chris joined the Detroit Water and Sewerage Department in the spring of 2008 as a Jr. Water Systems Chemist. By 2012 Chris was a Senior Water System Chemist and he accepted the position of Plant Manager in the spring of 2016 after department's transition to the Great Lakes Water Authority.

Russell Gibson is Freese and Nichols Principal and Vice President and senior technical lead for water transmission projects. Rusty has designed and managed over 600 miles of water transmission projects up to 108" diameter, 35 pump stations up to 430 MGD capacity, and four reservoirs.

He is a member of the AWWA Standards committee for steel pipe and concrete pipe, and is chair of the concrete pressure pipe standards subcommittee for installation of Concrete Pressure Pipe. Rusty is also a member of ASCE and WEF. Rusty received his B.S. in Civil Engineering from Texas A&M University and has 40 years of experience.

Michelle Peters is a process engineer and project technical lead with Stantec in Denver, Colorado. She has over 10 years of experience in water and wastewater treatment plant planning, design, and construction.

Hélène is Brown and Caldwell's Distribution System Water Quality Leader. Her background and experience include engineering, chemistry, and microbiology, which gives her the skills to address the complex challenges that are encountered in the water industry. Hélène started working in the drinking water industry in 1989. Throughout her career, she has developed a keen understanding of disinfection processes and disinfection byproducts (DBPs), microorganism inactivation and control, corrosion control, impact of treatment processes on distribution system water quality, and regulatory compliance.

Jennifer Liggett is the Global Technology Leader for Drinking Water Quality at Jacobs. She has over 14 years of research and consulting experience with drinking water quality. Her experience includes Lead and Copper Rule compliance, corrosion control studies, regulatory compliance plans, source water quality evaluations, nitrification and legionella mitigation and management plans and online water quality monitoring programs. Jennifer earned a BS in Environmental Studies and a MS in Environmental Science from the University of Dr. Corwin has over 20 years of experience as a professional engineer and project manager providing the drinking water community with services in process planning, treatment optimization, bench testing, and pilot testing. Previous to joining Corona, Dr. Corwin spent five years as a faculty member at the University of Colorado's Environmental Engineering Program.

Phil has extensive experience in the treatment of inorganic contaminants, including lead, copper, arsenic, chromium, manganese and perchlorate. He is the current chair of the AWWA Inorganic Contaminants Committee and Manganese Subcommittee. Phil received his PhD from the University of Colorado followed by 20 plus years' experience as a consultant, working for McGuire Environmental and HDR Engineering. He is currently owner of his own firm, Brandhuber Water Quality & Treatment LLC.

Chris Hill is AECOM's Drinking Water Market Sector Leader. He has 30 years of experience in drinking water supply and treatment, with an emphasis on distribution system water quality. He is co-author of AWWA Manual M58 Internal Corrosion Control in Water Distribution Systems and a past member of the AWWA Lead and Copper Rule Technical Advisory Workgroup and helped AWWA assess the national cost of compliance for the Hélène is Brown and Caldwell's Distribution System Water Quality Leader. Her background and experience include engineering, chemistry, and microbiology, which gives her the skills to address the complex challenges that are encountered in the water industry. Hélène started working in the drinking water industry in 1989. Throughout her career, she has developed a keen understanding of disinfection processes and disinfection byproducts (DBPs), microorganism inactivation and control, corrosion control, impact of treatment processes on distribution system water quality, and regulatory compliance.

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Chris Hill is AECOM's Drinking Water Market Sector Leader. He has 30 years of experience in drinking water supply and treatment, with an emphasis on distribution system water quality. He is co-author of AWWA Manual M58 Internal Corrosion Control in Water Distribution Systems and a past member of the AWWA Lead and Copper Rule Technical Advisory Workgroup and helped AWWA assess the national cost of compliance for the Henry received his bachelors and masters degrees from University Minnesota. He has spent the last several years working for Stantec consulting working on a variety of water and wastewater treatment process designs. Henry is passionate about water, and improving the status quo. Some of his current areas of interest are treatment of contaminants of emergent concern and utilizing machine learning concepts for improved operation Dr. De Souza is an Environmental Engineer and Scientist in Ramboll's Water Division with focus in water chemistry and emerging contaminants. Dr. de Souza has previous research experience with water remediation projects funded by the Strategic Environmental Research and Development Program (DoD) and the Water Research Foundation, particularly in the utilization of advanced oxidation techniques coupled with novel materials for per- and polyfluoroalkyl substances (PFAS). Currently she is working on projects helping clients identify the appropriate treatment technology for PFAS and navigating the regulatory aspects regarding it.

Dr. Tamzen Macbeth is Senior Vice President and Remediation Practice Leader for CDM Smith with over 20 years of experience in cleanup of hazardous waste contaminated sites. Her work leverages her interdisciplinary academic and research background in microbiology and engineering to advance remediation technologies to clean up non-aqueous phase liquids (NAPLs), dissolved organic, inorganic, radioactive chemicals and emerging contaminants, such as PFAS, under a variety of regulatory programs. She has served as principal investigator, manager and/or technical lead and advisor for government, private and international contaminated sites undergoing characterization, design, and remediation at the laboratory-scale, pilot-scale and full-scale. Dr. Macbeth has published more than 100 technical papers, presentations, training manuals and guidance documents on remediation topics, and seminars and short courses for the ITRC, USACE, Navy RITS, and been an invited speaker at international conferences and symposia on remedial technology application for cost-effective currently serves as President. She is the President and Chief Executive Officer of Watermark Associates, a comprehensive business consulting firm. Ms. Burke received her bachelor's degree from Mount St. Mary's University, Los Angeles, in International Economics & Marketing as well as her master's in business administration with an emphasis in Organizational Leadership. She completed her field study in energy and utility management in China.

Tim Worley is a Senior Advisor at Ortega Strategies Group, drawing upon thirty years of leadership in the water utility and environmental sectors to help organizations meet challenges in policy advocacy and communications. Tim was previously Executive Director of the California-Nevada Section of AWWA from 2011-2019. He serves on the Leadership Council of WaterNow Alliance and co-leads a team developing the Transformative Water Leadership Academy.

Christa is an experienced water industry professional with 20 years of success using and promoting technology to solve problems in the water industry. Recognized for Industry thought leadership, strategic thinking, and building success with organizations across the globe. She is a passionate GIS advocate, lifelong learner, and collaborator. Christa has a diverse background, with experience in conversion from paper to digital, drafting and design of engineering plans, superfund site remediation, environmental mitigation, managing geographic information systems, and implementation of new technology.

She is a certified GIS Professional and holds bachelor's degrees in Geography & Environmental Studies and a graduate degree in Geography.

Charlene Kormondy is a Physical Scientist in the Water Security Division at the U.S. EPA. Currently, her work focuses on outreach, communication, and providing trainings to water utilities across the country on America's Water Infrastructure Act (AWIA) Section 2013, which requires community drinking water systems that serve over 3,300 people to develop or update risk and resilience assessments and emergency response plans. She also leads AWIA certification tracking efforts and database management. Previously, Charlene completed an Oak Ridge Institute for Science and Education Fellowship in the Standards and Risk Management Division of EPA's Office of Ground Water and Drinking Water. Charlene earned her master's degree in Environmental Science and Management, with a focus on water resources management, from the Bren School of Environmental Science and Management at the University of California, Santa Barbara. While in graduate school, Charlene completed a summer internship at EPA in the Office of Wastewater Management, Water Permits Division. Charlene also holds Saša is Burns & McDonnell's Digital Utility leader with over 30 years of digital water and hydraulic modeling experience. He offers a unique blend of practical, theoretical, and software skills perfected as the lead designer of modeling software, an advisor on the most challenging modeling projects, and an internationally recognized digital water authority. Saša is an active member of SWAN, AWWA, and WEF committees and serves as on the Board of Advisors for Qatium and WCS Engineering.

Jim serves as the Global Director for Water Optimization at Arcadis. He is the Vice-Chair of the AWWA Engineering & Construction Division, and Chair of the AWWA Digital Twins Committee with a background in engineering, planning, utility operations, intelligent water, and artificial intelligence.

Mr. Tripathi has more than 15 years experience in hydraulic modeling, Water/wastewater System evaluation and, Master Planning . He has BE in Civil engineering, M.SC in Water Resource Engineering and On-going PhD in Water Engineering from Texas A&M University. He is serving as a managing engineer in water planning group in Houston Water and is a committee member of AWWA's Digital Twin and Engineering & Modeling Committee. He is known leader in process automation and adopting new technology (Machine Learning/ AI, Digital Twin) in Mr. Tripathi has more than 15 years experience in hydraulic modeling, Water/wastewater System evaluation and, Master Planning . He has BE in Civil engineering, M.SC in Water Resource Engineering and On-going PhD in Water Engineering from Texas A&M University. He is serving as a managing engineer in water planning group in Houston Water and is a committee member of AWWA's Digital Twin and Engineering & Modeling Committee. He is known leader in process automation and adopting new technology (Machine Learning/ AI, Digital Twin) in Saša is Burns & McDonnell's Digital Utility leader with over 30 years of digital water and hydraulic modeling experience. He offers a unique blend of practical, theoretical, and software skills perfected as the lead designer of modeling software, an advisor on the most challenging modeling projects, and an internationally recognized digital water authority. Saša is an active member of SWAN, AWWA, and WEF committees and serves as on the Board of Advisors for Qatium and WCS Engineering.

Jim serves as the Global Director for Water Optimization at Arcadis. He is the Vice-Chair of the AWWA Engineering & Construction Division, and Chair of the AWWA Digital Twins Committee with a background in engineering, planning, utility operations, intelligent water, and artificial intelligence.

Tom Walski is a senior a product manager at Bentley Systems, Inc. He has 45 years of experience in applied hydraulics. He is author of hundreds of journal papers and conference presentations and is the author or co-author of several books. He is trustee for the Distribution and Plant Operations Division and a longtime member of the Engineering Modeling Applications committee. He won the trivia contest at 2021 AWWA ACE.

Tom Walski is a senior a product manager at Bentley Systems, Inc. He has 45 years of experience in applied hydraulics. He is author of hundreds of journal papers and conference presentations and is the author or co-author of several books. He is trustee for the Distribution and Plant Operations Division and a longtime member of the Engineering Modeling Applications committee. He won the trivia contest at 2021 AWWA ACE.

Dr. Lauren Weinrich is a Principal Scientist in Camden, NJ where she carries out advanced research projects to remediate emerging contaminants, improve drinking water treatment and distribution system operations. She manages a team of professional scientists in the American Water research laboratories in Illinois and New Jersey. Lauren has a BS degree in biology at Marymount University, an MS degree from the UNC-Chapel Hill, and her PhD in environmental engineering from Drexel University.

In 2016, Mike McGill founded WaterPIO, a national public communications firm dedicated to affordably helping water and wastewater utilities of all sizes improve their overall and project-specific customer, media, and crisis communications.

In 2021, McGill and WaterPIO launched an additional platform – LeadCopperRule.com – to help water utilities successfully handle the many public communication challenges created by the new Lead and Copper Rule.

Before WaterPIO, Mike directed public information and customer service operations for major water and wastewater utilities for a dozen years, including the Washington Suburban Sanitary Commission and Loudoun Water.

McGill holds a Dual Degree in Broadcast Journalism and Political Science from Syracuse University. He began his career at American Water, where he is the Director of Environmental Compliance and Stewardship for American Water, the largest and most geographically diverse U.S. publicly traded water and wastewater utility company. He and his team support local operations in providing high quality drinking water and discharging high quality wastewater, all while protecting the environment. In the water industry for almost 30 years, Matt has held positions with ASDWA and the NJDEP, has a B.S. in Chemical Engineering, and is a licensed PE.

Matthew Junker is a Public Relations Specialist for the Municipal Authority of Westmoreland County

Matt communicates to the public through channels like MAWC's web site, social media, press releases, and outreach. He monitors legislation and regulations, researches issues, and consults with the executive team to manage MAWC's public image. Matt serves on the Public Affairs Council at the American Water Works Association and has had four articles published in JournalAWWA and OpFlow.

Marci Davis brings 25 years of communications experience to the utility industry from journalism to video to PR. As a Communications Leader with Jacobs, she's spent the last several years helping utilities across North America with communications planning, community outreach, multimedia production, media training, crisis communications and more. Through this work, she's gained a special appreciation for the contribution water and wastewater professionals make on a daily basis. She is a University of Georgia graduate with a journalism degree and participates in several organizations – AWWA, the Georgia Association of Water Professionals, and the American Water Works Association. Amit has over 20 years of proven Project Management experience for environmental engineering projects, including water treatment, wastewater treatment, facility planning, program management and construction management. Skilled in leading multi-disciplined design efforts for large projects in the Nebraska - Iowa area.

Skylar Reed began working as an Environmental Engineer for the City of Newark, NJ Water Department in 2020. There, she utilizes her background in environmental chemistry, industrial wastewater / waste chemical treatment, process improvement and research to assist the completion of a wide range of projects. Her passion for water dates back to her time as an undergraduate research fellow at Seton Hall University. Since then, she has participated in research regarding biomonitoring techniques, improved extraction efficiency, PPCPs and harmful algae blooms, and conducted studies on industrial process improvement and water, wastewater, and waste chemical treatment. She received her B.S. in Chemistry with focuses in biochemistry and environmental chemistry, and is currently an Environmental Engineering graduate student at the New Jersey Institute of Technology. Mr. Contreras has a B.S. in Civil Engineering, and a M. Sc. in Hydraulic Resources from Los Andes University (Bogota, Colombia). He has over 20 years of international experience in the water sector, having worked in Colombia, England, the Middle East and more recently in the United States. He is registered as a Professional Engineer in NJ, MA, and PA, he holds a Municipal Engineer certification in NJ, and he is also a Certified Floodplain Manager. Mr. Contreras' work has emphasis in integrated water resources management, water and wastewater treatment and distribution systems, utility efficient operation, and hydraulic modeling. As a Municipal and Utilities Engineer, direct interaction with municipal clients, preparing engineering designs, budgets, plans, specifications, schedules, procurement of grants, and Federal, State, local permits, for a wide variety of projects. Erik Rosenfeldt is Hazen's Director of Drinking Water Process Technologies and a senior member of the Firms Drinking Water, Reuse, and Innovations Practice Groups. He has over 23 years experience in addressing drinking water and reuse challenges related to emerging contaminants through research, evaluation, and design projects. Caroline Russell is a Principal Technologist with Carollo Engineers, Inc. with 20 years of experience addressing drinking water supply and treatment challenges for water systems across the U.S. She received her Bachelor's degree in Civil Engineering from Duke University and her doctorate in Environmental Engineering from the University of North Carolina. The Alex Gerling is a Source Water Quality Scientist with Hazen and Sawyer. Alex assists utilities by working to improve their source water quality and treatability. Alex's technical experience have been focused on source water and watershed management.

Ms. Glowczewski has over 14 years of experience in watershed management and water operations. She is responsible for managing and monitoring the 207 mi² Upper Cuyahoga River Watershed for the City of Akron, Ohio's drinking water plant as a raw water supply. She developed the City of Akron's Watershed Control Program for compliance with the Long Term Stage 2 Enhanced Surface Water Treatment Rule, the first plan endorsed by the Ohio EPA, and which has since proved preventative actions can reduce the impacts of biological pathogens, as Akron's second 2 year long round of testing revealing no cryptosporidium in the source waters. Additionally, through collaboration with the University of Akron, she was pivotal in designing and implementing a HAB mgmt. program to mitigate the formation of potentially toxic blooms. Implemented three seasons ago, this program has successfully prevented bloom formation for three years running in Lake Rockwell Reservoir, a 107 year old impoundment on the Cuyahoga River with a history of multiple blooms throughout the season. Jessica has a BS from Kent State University, a Class III Ohio Water Operator License, and is a NALMS Certified Lake Manager.

Dr. Eric Wert is the Project Manager of Applied Water Quality Research within the Water Quality Research and Development division at the Southern Nevada Water Authority. He received his BS in Civil Engineering from West Virginia University, M.Eng. in Environmental Engineering from Pennsylvania State University, and PhD in Civil Engineering from the University of Colorado at Boulder.

Alex Gorzalski is an Associate with Hazen and Sawyer. His work focuses on water treatment process engineering and water supply planning. He is a licensed professional engineer and certified water treatment operator with experience in utility operations.

Jeffrey J. Haby, P.E. Vice President – Production and Treatment

Jeff has been at San Antonio Water System (SAWS) since 1997, serving in positions in both Engineering and Operations. He is presently serving as the Vice President of Production & Treatment. In this position Jeff is responsible for management of; the Sanitary Sewer Overflow (SSO) Reduction Program, water production facilities and wastewater treatment facilities.

Prior to joining SAWS, Jeff worked in the engineering consulting business in Kansas City and San Antonio.

A graduate of Texas A&M University with bachelor's and master's degrees in civil engineering, Jeff is a registered

Graham Moore is a licensed professional engineer with more than 20 years of experience. A graduate of Southern Methodist University, he began his career by designing mechanical systems for manufacturing and communication facilities for a consulting engineering firm in Dallas.

After moving to Austin in 2000 his career shifted toward public infrastructure where he quickly became focused on solving challenges in a cost-effective yet enduring way. Eight years ago this focus was more fully realized when Graham became the first Executive Director of the Alliance Regional Water Authority.

Marisa Vergara is a Senior Vice President and Water Practice Director at CP&Y, an STV company. She is a Texas Professional Engineer and holds a master's in civil engineering from the University of Texas at Arlington and a bachelor's in civil engineering from Texas A&M University in College Station. Marisa has over 25 years of experience managing and designing water and wastewater projects throughout Texas, including an ACEC National Grand Engineering Excellence Award winning project in San Antonio, TX. Marisa is a former ENR Top 20 under 40 Engineering Professional, Kenneth Miller Water For People Founder's Award recipient and the 2019

Mr. Carter serves as Strategy, Innovation & Transformation Lead for Arcadis North America. He works globally with water sector utilities studying emerging issues and developing best practices in fields such as strategy, research, innovation, and utility management. He recently served as the Principal Investigator for The Water Research Foundation's Project 4907 – Leading Water and Wastewater Utility Innovation. This utility collaboration included over 75 utilities internationally and generated guidance for Innovation Leaders and Utility Executives as they develop innovation investment strategies, engage their workforce, and leverage partnerships

Keith Tyson is the Director of Innovation and Research at WSSC Water. He has over 30 years of experience in design, construction and facility management with the last 11 years at WSSC Water. He leads a professional innovation team that is focused on exploring employee ideas to drive operational efficiency and reliability. The team examines new technologies, creates new tools and revamps business processes to drive operational improvement to operators, maintenance technicians, pipeline networks and treatment plants to reduce operating expenses, improve sustainability and generate new revenue. He a registered Professional Engineer in both Maryland and the District of Columbia, and is a LEED Accredited Professional in Building Design and

Dr. John Norton is Director of Energy, Research, and Innovation for GLWA, a combined water/wastewater utility in Southeast Michigan. GLWA treats more than 40% of the water, and 30% of the wastewater, for the state of Michigan. Norton leads GLWA's research efforts to understand, extend, and enhance its linear and process

Alane is an architect of AWWA's Transformative Water Leadership Academy (TWLA) which will be highlighted during the presentation. The TWLA focuses on the fundamental concepts of sustainable community leadership to prepare participants for higher-level positions within the water utility sector so that they can address new NexGen challenges and the substantial change within utilities. A strong emphasis on Sustainable Community Leadership Concepts, which will guide participants in how to consider and balance social, environmental, equity and financial concerns, sets this program apart from other traditional water leadership programs.

With over thirty years of environmental engineering experience in Water and Natural Resources Alane brings specific expertise covering various eco-friendly projects along with management of non-profit programs. As Executive Director she led the Intermountain Section AWWA for 16 years creating training and education programs for water loss control, operator certification, leadership training, and customer service. Additionally, she has been a member of AWWA for 20+ years and has contributed to the Special Presidential Panel (SP2) and AWWA 2020.

Past water quality experience includes sampling, modeling and analysis, and watershed science. Her projects include numerous TMDLs, and water quality assessments for lakes, reservoirs, streams, and rivers for a variety of parameters including nutrients, DO, and metals.

Alane has substantial background in conjunctive management of surface and ground water and water resources planning. She was the project manager for the Water Replenishment District of Southern California's recharge strategic plan that set plans for management of 250,000 ac-ft per year of water in the basin. Also as a project engineer she planned and implemented water conservation projects for the Central Utah Project (CUP) Completion program as well as completed modeling and planning to bring water from Strawberry Reservoir to the Wasatch Front.

She is a practiced professional in the areas of environmental analysis, NEPA and other environmental permitting having managed numerous permits for recreational and industrial facilities including Sunnyside Mine, Star Point Mine, Solitude Ski Resort, West Desert Pumping Project, proposed Tooele Landfill, and a number of water

Stephanie proudly leads two mission-driven organizations she co-founded; she serves as Chief Vision Officer for Rogue Water, LLC and Co-Executive Director for the nonprofit, Rogue Water Lab. Her mission is to revolutionize the water industry by making water the catalyst for community transformation. She is half of the H2duO and co-host of the Water in Real Life podcast. Stephanie had the honor of beginning her career in water working for municipal water utilities for a decade before "going rogue." She credits her passion for this industry to the men and women she spent time with in the field as a young professional. Stephanie is a mother, an innovator, an entrepreneur, and proudly dons her misfit badge.

Julie Bliss Mullen is the Co-founder and CEO of Aclarity, a Massachusetts company that develops and deploys patented electrochemical treatment solutions to destroy contaminants such as PFAS in water and liquid waste. Julie invented the technology as a PhD Candidate at UMass Amherst where she studied innovative water treatment technologies and subsequently founded Aclarity to sustainably and cost-effectively clean the world's most challenging waters. Previously, she worked at the US EPA's Drinking Water Unit in Region 1 in engineering and policy development. Julie holds degrees in Environmental Engineering and Environmental & Sustainability Studies from Worcester Polytechnic Institute. She has been recognized as a 2019 Forbes 30 Under 30 recipient in Science, 2019 Lemelson-MIT Award recipient, and 2018 Innovator of the Year by NEWIN/NEWEA. Her most

Alex Page is an Environmental Engineer who has worked as a construction manager and project engineer on water and wastewater projects for the past 9 years. Alex's project experience includes large diameter pipelines, wastewater, water, and advanced water purification treatment processes. Alex served as the Project Engineer during the construction and start-up of the Pure Water Monterey AWWPF, and has recently completed the design to expand the Monterey AWWPF to a peak capacity of 7.6 MGD.

Jason Assouline is a project manager and associate vice president at Carollo Engineers in Denver. He is part of Carollo's water reuse technical practice and the Carollo Research Group. Jason's experience has focused on water reuse and drinking water projects and over the past 18 years his project work has included research projects, pilot plant design and operation, full scale treatment plant design and operation, and construction management. Jason earned bachelor's and master's degrees in Civil and Environmental Engineering from the University of California, Berkeley. Dr. Mackey is Brown and Caldwell's National Technical Innovation Leader in drinking water and reuse. She specializes in water treatment and reuse and sits in their Walnut Creek, California office. She just finished her term as a Trustee of the Water Sustainability Division.

Christian is a process engineer with over 15 years experience designing, commissioning, and troubleshooting water treatment facilities both domestically and overseas. He has held a lead role in the areas of both design as well as commissioning & startup on projects covering membrane treatment, granular media filtration, dry/liquid chemical systems, and thickening/wastewater recovery. Christian has also led the piloting efforts for several large-scale treatment investigations covering seawater desalination, water reuse, and surface water treatment.

Larry is a senior R&D scientist for Kubota Membrane USA. His work focuses on the design and improvement of MBR systems as well as applying MBR for water reuse. Prior to joining Kubota, Larry was a post-doctoral researcher at the Center for Photochemical Sciences at Bowling Green State University. He holds a PhD in physical inorganic chemistry from Michigan State University and a BS in chemistry from Lipscomb University.

Bryan is Black & Veatch's Ultraviolet (UV) Technology Leader, located in Fort Mill, SC. He is a process engineer in the Water Technology Group, specializing in the development and application of advanced water process technologies, including the application of ozone, UV disinfection and advanced oxidation technologies for the treatment of water, wastewater and water reuse.

Yoorae Noh is a Ph.D. student in the Lyles School of Civil Engineering at Purdue University. She is investigating the fundamental factors that control public and occupational health risks associated with the most popular pipe repair process used in the U.S. called cured-in-place-pipe. Ms. Noh is applying toxicology, polymer science, environmental engineering, and analytical chemistry principles. In addition, she is working on understanding drinking water safety in residential and commercial building plumbing and post-disaster plumbing testing and decontamination support. She earned her bachelor's and master's degrees from Civil and Environmental Engineering at the University of California, Berkeley.

Godson Ebenezer Adjovu is a Ph.D. student majoring in Civil and Environmental Engineering at the University of Nevada, Las Vegas (UNLV).

His research is focused on remote sensing applications in water quality monitoring. He obtained his bachelor's and master's degrees from the Kwame Nkrumah University of Science and Technology (KNUST) in Ghana and Tennessee Technological University, respectively.

Amir is an environmental engineer with over 10 years of experience researching various areas of drinking water treatment. His interest in drinking water treatment began in his junior year in college. He was fascinated by how complicated water treatment was and how it required knowledge and application of engineering, chemistry, and biology. Amir's interests in drinking water treatment turned into a passion and later an obsession—which led him to pursue graduate degrees in civil engineering with a focus in drinking water treatment.

Andrew is a Purdue University professor of civil, environmental, and ecological engineering with 20 years of experience uncovering and addressing problems at the interface of infrastructure materials, the environment, and public health. He directs the Healthy Plumbing Consortium, Center for Plumbing Safety, and other initiatives. His team's discoveries pertaining disaster response and recovery, worker and public safety have influenced decisions by state executives, legislatures, the National Academies of Sciences, and the Chemical Safety and

Kristofer P. Isaacson is currently pursuing a Ph.D. in Environmental and Ecological Engineering at Purdue University. He earned a B.S. in Biochemistry at University of Wisconsin-Madison, and a M.S. in Chemical Engineering at University of Minnesota. Previously, he has worked on projects investigating the impact of various biofilter design parameters on heavy metal and microbial contaminant removal from industrial stormwater. Currently, he is involved in research exploring water quality concerns related to disaster response and recovery. Specifically, how thermal damage to plastic components within drinking water distribution systems may impact

Heather Himmelberger, P.E. is a registered professional engineer with over 35 years of experience working with water and wastewater utilities all across the U.S. She has a BS and MS in Environmental Engineering from Penn State University and Johns Hopkins University, respectively. Heather has served as Director of the SW EFC since 1996 and has been a staunch advocate and promoter of asset management practice for over 20 years. She has provided hundreds of asset management trainings and assisted systems of all sizes and types with understanding

Mr. Campanella is the Chair of the AWWA Asset Management Committee. He is also Burgess & Niple's Asset Management Director. He helps agencies deliver more and spend less using leading-edge planning tools. He studied under the authors of the International Infrastructure Management Manual in New Zealand in the early 2000's. For 7 years, he was an Assistant Director at Columbus Public Utilities. He has since led AM initiatives for municipalities with populations ranging from 600 to 2.5 million.

Frank joined the Southwest Environmental Finance Center in 2020 focusing on utility management, asset management and other water sector research. Before joining the SWEFC, he worked at the Albuquerque Bernalillo County Water Utility Authority where he oversaw several utility management functions including strategic policy and planning, asset management, customer engagement, organizational culture development, and performance measurement and management. He is a member of the Asset Management and Utility utilities. He is conversant with several project implementation methodologies performing the AM's role in D/B/B, D/B/O, and other PPP arrangements. Barry owns Buchanan and Associates an Infrastructure Planning consultancy. His work focuses on optimizing whole of life asset availability and utilization while encouraging leadership to embrace Doughnut Economics; the provision of agreed levels of service that endeavor to prevent human deprivation and planetary degradation.

Celine Hyer is the National Water Conveyance Practice Leader for Arcadis US and is located in Tampa Florida. She has a B.S. in Chemical Engineering and an M.S. in Engineering Management from Florida Institute of Technology. Celine has 32 years of experience in Engineering with 22 years that are directly related to advanced asset management program implementations including strategy and risk based planning for pipelines pumping and treatment facilities. Ms. Hyer currently serves as the Vice Chair of the AWWA Asset Management Committee, the Chair of the ASCE UESI Asset Management Division, and is a member of the ASCE Committee on

Ms. Cox is a registered professional engineer, specializing in environmental and water resources and she has a bachelor's in civil and environmental engineering from the University of Michigan. She has over twenty years of experience conducting study and design work associated with utility planning, hydraulic modeling and system control. Ms. Cox is currently a chief engineer with the Oakland County Water Resource Commissioner's Office over the Regional Systems Unit, which includes the Capital, Asset Management and Planning group. She is the chair of the AWWA Engineering and Construction Division, on the asset management committee, and a member of the MI-AWWA membership council. She is also a member of the Michigan Water Infrastructure Council (WAMC), whose role is to foster and support a statewide culture of asset management focused on the role of

Murat Engindeniz is an Associate Principal at Simpson Gumpertz & Heger specializing in condition assessment and rehabilitation of pipelines using state-of-the-art technologies. His experience includes more than 300 projects for water and power utilities in the U.S., Canada, and abroad, including numerous projects at nuclear power plants, extensive experimental and analytical research, standards development, and more than thirty publications. He managed the Water Research Foundation projects that form the technical basis of AWWA Standard C305 - CFRP Renewal and Strengthening of PCCP. He is the Chair of AWWA Manual M81 - Rehabilitation of Large Diameter Water Mains and is involved in other professional committees at AWWA, ASTM, ASCE, and ACI at various capacities. Murat holds more than 20 professional engineering licenses in the

Joanne Carroll has over 30 years experience in the water and wastewater industry, including 18 years with a major polymeric lining manufacturer and 10 years leading a CIPP system provider, until starting Subtegit Group Inc. to provide consulting on the rehabilitation of infrastructure using trenchless technologies. Joanne is Vice-Chair of the AWWA Watermain Rehabilitation Committee, active in the development of M28 4th Ed, M81, AWWA C623, and design appendices. In addition, Joanne serves as Chair of the NASSCO Pressure Pipe

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Eric is a water resources engineer with experience in both private industry as a consulting engineer and in academia as a researcher and educator. He has specific expertise in water resources planning and management, including water supply and availability analyses, studies of climate variability and climate impacts, and water supply risk assessment for federal, state, municipal, and private clients. Prior to joining Stantec, Eric was a faculty member and researcher at the University of Texas at Austin.

Nissim is based out of the Austin, TX office of Arcadis US, Inc. He has an M.S. in Environmental Engineering from Georgia Tech, and an M.Sc and a B.E. from BITS Pilani in Goa, India. He has worked with utility and industrial clients on issues ranging from aging infrastructure and corrosion to nonrevenue water and resilience. His interests include digital water, PFAS, DBPs and treatment technologies.

Persephene St. Charles, Woodard & Curran's Water Resources National Practice Leader, has over 20 years of experience managing local and regional planning projects for agencies and groups focused on addressing water supply, water quality, stormwater, flood protection and watershed issues. She specializes in providing tailored solutions that meet a variety of client objectives including increasing water supply reliability, attaining multiple project benefits, protecting source water quality, engaging stakeholder and public participation, developing

Nicole Williams is currently a lead process engineer with Carollo Engineers, and new to Atlanta after working as the resident engineer for an ozone project at a water treatment plant in Salem, OR. After graduating from Brigham Young University, Nicole joined Carollo Engineers in 2015 where she worked on design projects and oversaw water quality studies in Carollo's Water ARC® laboratory in Boise, ID. She has extensive experience in ozone, from bench and pilot scale testing, initial and detailed design, and construction.

Susan is the East Region Condition Assessment & Rehabilitation Business Class Lead for HDR's Water Business Group. The entirety of her 22 years in the water industry has been focused solely on buried infrastructure. She has experience in the full lifecycle of buried infrastructure, from managing design and construction projects for both pressure and gravity piping to development and implementation of large-scale linear asset management programs for both pressure and gravity pipes. She holds a BS degree in Chemistry from Salisbury University in MD, as well as a BS degree in Civil Engineering from the University of MD.

Mr. Dsingh developed an increasing range of experience in the area of water and wastewater design, and operation and condition assessment of buried infrastructure. He has been involved in the design and preparation of plans and specifications, permitting, construction observation, and construction phase engineering for water transmission mains, sewer force mains and pumping stations. In addition, he has extensive experience in the inspection and condition assessment of buried infrastructure using state-of-the-art water inspection technology.

Mr. Tanzi is a senior vice president and senior project manager at CDM Smith with experience in the planning, study, design, permitting, and construction phases of water and wastewater treatment and conveyance facilities. He has a B.E. in civil engineering and an M.E. in environmental engineering from Stevens Institute of Technology. He is currently chair of the Strategic Planning Committee for New Jersey American Water Works Association and also has served as past Chair of the NJAWWA Section. Mr. Tanzi is a licensed professional engineer in four states.

Annikki Chamberlain founded Mimir Water to provide practical solutions to eliminate the financial and environmental cost of water waste at commercial properties. Annikki has applied experience in many facets of water management, including water supply and efficiency, watershed and climate science, wastewater treatment, and water policy. Annikki has a B.S. in Watershed Science from Colorado State University and an M.S. in Climate Science and Solutions from Northern Arizona University.

Mr. Kinslow serves as a senior project manager and technology leader in membrane processes for Tetra Tech with more than 22 years of experience in delivering drinking water and advanced treatment solutions. His activities during this time include treatability studies, pilot testing, design, permitting, construction administration, data analysis, and planning. Mr. Kinslow has extensive experience in the implementation of water treatment projects and alternative water supply programs, with a combined experience of more \$500M in constructed facility cost. He is an active member of the American Water Works Association (AWWA) and serves on membrane treatment related technical committees, the American Membrane Technology Association (AMTA) and the Southeast Desalting Association (SEDA) where he previously served on the Board of Directors and is a past president. He has authored and coauthored numerous professional papers related to conventional

Praveen Krishna is a Project Manager for Arcadis located in Austin, Texas. He has 19 years of experience designing and constructing bench-, pilot-, and full-scale treatment systems for both municipal and industrial systems. Praveen also has a range of experience with noise impact evaluations, remediation, solid waste, and

Benjamin Finnegan is a process engineer and technical specialist with professional experience in the design and optimization of drinking water process and hydraulic systems. As one of CDM Smith's technical specialists in water treatment processes, Mr. Finnegan's work includes filter designs for clients across the USA and around the globe. He holds a BS in civil engineering and an MS in environmental engineering, both from the University of Illinois at Urbana-Champaign. He is a licensed professional engineer and a board certified environmental engineer. Matt Sellers is a Product Manager at Aquatic Informatics' for their Enterprise Asset Management Sedaru Platform. As a PM and former hydraulic modeler, Matt enjoys discovering what customers really want and need and how he can help turn complex workflows into simple, streamlined, and automated solutions. He is passionate about building software that solves customer pain points, unifies their data and helps customers. Rob is a Senior Principal and Drinking Water National Practice Leader with over 28 years of experience in the evaluation, planning, design, and construction of water works facilities. He is responsible for the delivery of Woodard & Curran's drinking water projects across the country.

Since 2017, Helen has held key roles as Assistant Project Manager and/or Project Engineer on 4 pump stations projects, 4 water transmission projects and 3 wastewater projects. Helen was recognized with the 2019 AWWA and WEAT Emerging Leader Award, the 2020 JNR Freese and Nichols, Inc. Award and the 2021 TSPE Young Engineer of the Year Award for contributions to the community and engineering profession. She has served with several non-profits, contributed to engineering designs of water facilities in Chile and Nicaragua, serving over 1,500 hours. Helen graduated with a Bachelor of Science in Civil Engineering from Texas A&M University.

Graham Peaslee is a professor of physics at the University of Notre Dame. He leads an active research group in the area of applied nuclear science where he brings established nuclear measurement techniques to pressing environmental issues. His interests include the detection of total fluorine as a surrogate for PFAS. He earned a bachelors degree in Chemistry from Princeton University in Princeton NJ, as well as a PhD in Chemical Physics from the State University of New York in Stony Brook, NY.

Kyle Thompson is a Reuse Technologist and Emerging Technologies Lead at Carollo Engineers. His areas of expertise include PFAS, potable reuse, and machine learning. Kyle received his BS in environmental engineering in 2013 from Missouri University of Science & Technology as valedictorian and with honors. He received a Master of Science in Civil Engineering and PhD in Environmental Engineering from the University of Colorado Boulder. Kyle previously worked as postdoctoral researcher at the Southern Nevada Water Authority. Kyle is a registered Professional Engineer in the state of Nevada.

Lan Cheng is a Ph.D. student in the research group of Dr. Detlef Knappe in the Department of Civil, Construction, and Environmental Engineering at North Carolina State University. Her research aims to develop a scale-up approach to predict PFAS removal by anion exchange resins from bench-scale column data. Her research also investigates how properties of PFAS, anion exchange resins, and background water matrix affect anion exchange resin use rates. Her research is funded by The Water Research Foundation and the NC Policy Collaboratory.

Detlef Knappe is the S. James Ellen Distinguished Professor of Civil, Construction, and Environmental Engineering at NC State University. He received his BS, MS, and PhD degrees from the Department of Civil and Environmental Engineering at the University of Illinois at Urbana-Champaign, and he joined the NC State faculty in 1996. He is the Deputy Director of NC State's Superfund Center "Environmental and Health Effects of PFAS" and is a member of NC State's Center for Human Health and the Environment. Detlef's research interests broadly encompass drinking water quality and treatment. He is a Trustee of the American Water Works Association's (AWWA's) Water Science and Research Division, he is a member of the North Carolina Secretaries' Science Advisory Board,

Dr. Karanfil is the Vice President for Research and a Professor of Environmental Engineering and Earth Sciences at Clemson University. He is a registered professional engineer in the State of South Carolina, a Board-Certified Environment Engineer by American Academy of Environmental Engineers, a Fellow of International Water Association, and a principal member of Turkish Academy of Sciences. Professor Karanfil received his bachelor's degree in environmental engineering from Istanbul Technical University in Turkey in 1988. He completed his graduate work (M.Sc., 1991, Ph.D., 1995, Post-doc., 1996) at the University of Michigan.

Lisa is a dedicated Grant Specialist serving rural New Mexico clients. Lisa understands the grant process and the best way to approach complicated application requirements. She has built professional relationships with state and federal funding agencies and staff, allowing her to serve as a voice for clients navigating the application process. Lisa is familiar with federal and state agency requirements from the application process to bidding, contract management, and construction of various funding programs. She provides operational tools to meet technical, budgetary, and scheduling requirements of projects, as well as provides effective communication with the general public and government agencies.

EDUCATION

Bachelor of Business Management, Western New Mexico University, Silver City New Mexico, Silver City, New Mexico, 2006

PROJECT EXPERIENCE

Various Grants | New Mexico | 2018-2022 |

Grant Specialist

Lisa's role as a Grant Specialist is to assist communities in applying for funding from various funding streams in New Mexico. Applications for funding are often cumbersome for smaller, rural communities who lack the staff and capacity. These communities each year face challenges such as providing residents with clean, safe drinking water, waste facilities, safe reliable transportation modals, and decent affordable housing.

In the last five years Lisa has supported over 100 plus applications and was successful in assisting approximately \$30 Million in grant/loans funds for various infrastructure projects from programs including but not limited to the United States Department of Agriculture/Rural Development, New Mexico Finance Authority, Water Trust Board, Colonias Infrastructure Fund, Community Development Block Grant, State of New Mexico Legislature, New Mexico Environment Department, Acequia Rehabilitation Program, Rural Community Assistance Corporation, Tiger and Build Applications and many other state and federal programs. Lisa has assisted communities from all over the State of New Mexico, including municipalities, counties, water associations, water districts, acequias and tribal communities. The following are only a handful of communities that Lisa has supported as a Grant Specialist. Town of Silver City, City of Bayard, City of Deming, Grant County, Luna County,

Craig Reinsch is a senior engineer on the Nebraska Water/Wastewater team with Olsson, located in Lincoln, Nebraska. He received a BSCE and MSEE from the University of Nebraska in 2003 and 2005, respectively. Craig's professional experience includes small system water treatment, supply and distribution design, wastewater collection and treatment system design, water modeling, planning studies, and construction services. He is a Nebraska Grade I water operator, a BCEE, currently serves as the Nebraska Section AWWA Chair during their 75th anniversary celebration year, and has served as an adjunct instructor of practice at the University of

Fadel is a consultant Engineer, lecturer at the civil engineering department of Misr Higher Institute for Engineering and Technology, Egypt, and managing director of Urban Studies & Design Center (consultant office). He holds PhD in the surface water treatment by the fabric capillary action and MSc in the iron and manganese removal by using slow sand filtration. He has 17 years' experience in potable water, wastewater collection and treatment. His research has focused on the new low cost technologies and small systems.

Michaela Bogosh is a Project Manager at CDM Smith with over ten years of experience working primarily on drinking water treatment and drinking water quality. She received her BS and MS from the University of New Hampshire in Civil Engineering.

Eric is the Senior Process Engineer for WesTech Engineering LLC. He has worked in the water and wastewater industry since 1993. He has held various technical positions in Field Service, R&D, and currently manages WesTech's pilot and process group. Eric received his BSc. from the University of Northern Iowa and is licensed

Jim serves as the Global Director for Water Optimization at Arcadis. He is the Vice-Chair of the AWWA Engineering & Construction Division, and Chair of the AWWA Digital Twins Committee with a background in engineering, planning, utility operations, intelligent water, and artificial intelligence.

Infrastructure Planning, Hydraulic Modeling, and Asset Management both in the private and public sectors. Mr. Parhami is leading DC Water's implementation of Water Distribution and Sewer Collection System Digital Twin Initiative at DC Water.

Alireza is a registered Professional Engineer in the District of Columbia, Maryland, and Texas. He will be presenting on DC Water's experience and perspective on the implementation of Water Distribution Digital Twin.

Dr. Stanford is an Associate Vice President with Hazen and Sawyer in the Denver office where he works in utility management services and leads the implementation of innovations in water, wastewater, and water reuse. Ben earned his Ph.D. in Environmental Sciences and Engineering from UNC Chapel Hill and has conducted a range of studies across big data/analytics, science, engineering, and public health protection. He is currently working on several digital strategy, data integration, and smart water network projects for clients in the US. Dr. Stanford has over 60 peer-reviewed publications, and his work has been cited over 2000 times in peer-reviewed literature.

As a principal data scientist at Hazen and Sawyer, Dr. Roostaei is working on developing and deploying machine-learned models in water industry projects. He has developed real-time data cleansing and normalization tools to make the data ready for ML applications and also trained ML models. Before joining Hazen, Dr. Roostaei was a machine learning postdoctoral researcher at the University of North Carolina Chapel Hill, and he was developing Bayesian Network predictive models for PFAS and Lead Contamination. Dr. Roostaei has two patents and published more than seven peer-reviewed papers and presented in conferences. He has a Ph.D. in civil engineering, and a master's in computer science from Wayne State University, Detroit, MI.

Rob is a Practice Leader in Intelligent Technology Services (ITS) for Woodard & Curran. This position includes business development and oversight of SCADA design, integration, and service projects. He has 30+ years experience working on water and wastewater projects for clients in the municipal and industrial sectors. Municipal experience includes water and wastewater treatment equipment and SCADA systems for treatment plants and distribution/collection systems. Industry experience includes water and wastewater treatment systems in various industries. Rob is experienced in all areas of control system planning, design, and integration and has held technical and leadership positions for various industry leaders delivering a wide range of innovative solutions for clients. Rob holds a BS in Engineering from the Missouri University of Science & Technology, is a registered Professional Engineer, and is actively involved in AWWA working on the Distribution & Operations

Adam Plumstead, C.E.T is a 2007 graduate of the Electrical Engineering Technology program at Conestoga College and was recognized as an Alumni of Distinction in 2017. He is a Group Leader at Eramosa and has been with the firm since 2007. He is an active member of the ISA112 SCADA System Standards Committee and the AWWA Water Utility Technology and Automation Committee.

Scott is Senior Manager of Disruptive Technology at CDM Smith. He helps prioritize the use of technologies that blend the digital and physical worlds in support of the ongoing shift toward more distributed operations that enable hybrid work, remote deliver, and immersive digital experiences. CDM Smith is an early innovator in the use of Mixed Reality and Drone technologies and Scott leads the firm's efforts in both these areas. Scott is winner of CDM Smiths Presidents Award for Innovation, serves as the firm's chief drone pilot and has 25 years David Lynch is the co-founder and CEO of Klir, the all-in-one operating system for water & wastewater management. Prior to launching the Klir platform, David spent over a decade working with water utilities globally on business architecture, software system design, and policy implementation. David holds a Masters degree in Mechanical Engineering from Dublin City University. Learn more at Klir.com.

Channa Newman is the Manager of Education and Outreach for Louisville Water. She is a graduate of the University of Louisville and has been with the company for nearly 15 years. Her role is connecting the community to their water utility through the story of what it takes to provide safe, high quality water. She manages the four areas of Louisville Water outreach which include: youth and adult based education, Louisville Water Tower Park, including the rental and museum facilities, and the Louisville Pure Tap program.

Melissa Brasfield has been helping clients bridge the gap between projects and the community for nearly 10 years. She has helped guide strategic communications, met one-on-one with property owners and put together the first of its kind public information yurt. She helped guide clients through the virtual world of educational events and continued public outreach. She earned a bachelor's degree in Environmental Science and Policy from the University of South Florida and a master's degree in Environmental Science concentrating on Water

Alicia Smiley is a professional engineer at Black and Veatch based in Austin, Texas. In her work on water infrastructure and planning, it is her long-term goal to merge the technical aspects of engineering with marketing and advertising in order to create a seamless stream of communication between the engineer, client and public. Kristy began her career with USDA Natural Resources Conservation Service in 1995. During her 26 years of service, she has been promoted through multiple technical, supervisory, and leadership positions in Texas. Detail assignments in multiple states have given her valuable experience working with producers who have varied agricultural systems. Further, her assignments included executive level positions of Acting Division Director of Conservation Planning and Technical Assistance Division in Washington DC, as well as Acting State Conservationist in Iowa and Minnesota. As the co-chair for the National Conservation Planning Partnership, Training, Certification, Technical Processes and Tools Committee, Kristy advances conservation planner certification across the nation. She fostered new opportunities to increase streamlining and efficiencies in landscape initiatives such as the National Water Quality Initiative and Working Lands for Wildlife Conservation Strategies. Her leadership created a combined leveraging of federal, state, local, and private resources to maximize the impact of implementing conservation across the landscape. Kristy holds a Bachelor of Science degree in Agriculture from Sam Houston State University, and she is a graduate of the U.S. Department of Agriculture Emerging Leaders Development Program from The George Washington University Center for Excellence in Public Leadership. She received her Senior Executive Service (SES) certification in 2020.

Dr. Tim Bartrand has been an ESPRI research engineer since ESPRI's inception and is ESPRI's executive director. He envisions ESPRI as a meeting ground for all building water system stakeholders to advance research, policy and practice. Since 1997, Tim's professional focus has been drinking water and wastewater processes and public health protection. He has conducted applied research on a wide range of water quality topics and has specialized in disinfection and microbial risk assessment. Tim's current research focus is water quality in building plumbing.

Ni "Joyce" Zhu, Ph.D. is a Scientist in the Water R&D group at American Water. Her areas of focus include emerging chemical and microbial constituents, distribution system monitoring and management, and water reuse systems. She received her Ph.D. in Civil and Environmental Engineering from Virginia Tech and her Master's degree in Civil and Environmental Engineering from Massachusetts Institute of Technology.

Craig Douglas is the General Manager of the Brunswick & Topsham Water District in Maine. He is a licensed engineer and class IV operator in Maine. He is a Past President of the New England Water Works Association and past section chair. He currently represents New England on the AWWA Board of Directors. Craig is on numerous committees including the AC Pipe Standards and the newly formed on-line monitoring committee. He enjoys water quality and beer sampling, whenever opportunities arise.

Dr. Emily Tummons joined Black & Veatch in the Water Technology Group in 2016 after completing her PhD in Environmental Engineering from Michigan State University. She has designed and conducted water quality and corrosion studies for potable water treatment systems involving desktop, bench-scale, and pipe-loop evaluations to optimize corrosion control in the distribution system. Additionally, she has been involved in process optimization studies and regulatory reviews for municipal drinking water treatment facilities and has managed the technical side of projects related to the Lead and Copper Rule Revisions.

Chris Yannoni is a Senior Principal of the Water Group at Stantec in Burlington, Massachusetts. He has been with Stantec for over 35 years and directs water supply, treatment and distribution system projects for water suppliers throughout New England. He has also provided technical advice, value engineering, independent review and quality control on many projects throughout the US. He has been partnering with communities in developing creative engineering solutions to meet complex environmental and regulatory challenges, with a focus on water quality and treatment. He has a BS in Civil Engineering from UMass, Amherst and an MS from Northeastern University in Water Resources. He is a past chair of the NEWWA Filtration Committee, Vice Chairman of NEWWA Activated Carbon Powdered and Granular Standards Committee and is an active member of NEWWA Program Committee. He is a registered Professional Engineer in the six (6) New England States, and is an accredited Envision Sustainability Professional. He has presented numerous papers at local, regional and

T.J. Stroebel joined Tonka Water, now part of Kurita America, after earning a degree in Chemical Engineering. His career has focused on process and equipment design, troubleshooting, and development relevant to water treatment systems, with a strong emphasis on drinking water treatment. In his current role as Technical Marketing Leader he supports equipment sales efforts by providing a technical perspective to new markets, product applications, and research & development initiatives. T.J. is an active member of AWWA and will take over as Chair of the Association's Manufacturers/Associates Council (MAC) following ACE 2022.

John Helf is a Product Engineer for AMERICAN Flow Control, a division of AMERICAN Cast Iron Pipe Company. John graduated Summa Cum Laude from Mississippi State University with a BS in Mechanical Engineering in 2015 and is a licensed professional engineer (PE). In his role he is involved with product development and helps coordinate product design changes with AMERICAN's valve & hydrant subsidiaries. John is also involved with standards and in the sales function by assisting customers with various technical issues.

Francois Rodigari is the Director of Corporate Sustainability and Innovation at San Jose Water Company. In that position he is responsible for the development and implementation of a sustainability plan. He is also responsible to foster and leverage innovation for the SJW Group.

His experience at SJW Company includes serving as the Director of Water Quality and Environmental Services. He previously worked at East Bay Municipal Utility District (EBMUD) in Oakland, California, Northern Testing Laboratories in Anchorage, Alaska, and the Alaska Health Project in Anchorage, Alaska.

Francois Rodigari obtained a Business Certificate in Switzerland, a Bachelor of Science degree in Biology and a Master of Science degree in Environmental Quality Engineering from the University of Alaska Fairbanks. He holds D2 Water Distribution Operator and T3 Water Treatment Operator certifications, both issued by the California State Water Resources Control Board and a Grade IV Laboratory Analyst certification issued by the

Ari Copeland is an O&M Specialist at Black & Veatch Corporations and has 16 years in the water and wastewater industry, focused in water and wastewater plant operations. Ari is a AWWA Director at Large and incoming VP/Traveling Office. Ari has been a member of AWWA for 16 years and is an outgoing member of the Diversity and Membership Inclusion committee (DMIC). Ari is creator of the Wandering Water Bear website (www.thewanderingwaterbear.com) providing free resources as well as the wandering water bear podcast

Ann Casey is a Vice President and Service Delivery Lead for the Strategic Management Group which includes solutions for Asset Management, Organizational Management, and Technology Optimization. She has over 30 years of experience working with operational, managerial, and financial aspects of water, and wastewater utilities. Her comprehensive experience leverages industry best practices and advanced techniques to provide utilities the balance of risk and capital, while continuing to provide the service expected by their customers.

Uma Vempati has been serving on the AWWA Diversity and Member Inclusion Committee for the past 8 years.

Currently, he is the chair of the AWWA Diversity and Member Inclusion Committee. Along with his committee members, he strives to establish best practices to advance diversity and inclusion across AWWA and Water Sector. Uma currently works as the Senior Project Manager at Kimley-Horn and Associates. Uma has specialized expertise in water supply systems, water and wastewater treatment systems, water distribution and wastewater collection systems. He strategically develops designs and custom solutions to support a sustainable and cost-

Walt Walker is an Associate at Greeley and Hansen and also the firm's Water Equity Practice Leader. He has more than 15 years of experience in project management, planning, and design of water, wastewater, and solid waste facilities, as well as experience in climate resiliency design, master planning, financial capability assessments, and environmental permitting. As Greeley and Hansen's firmwide Water Equity Practice Leader, Walt works with utility leaders across the nation to accelerate equitable water management, planning, design, policies with a collaborative community-centered focus. Walt is a registered Professional Engineer in NY, NJ, and PA, and is a certified Envision Sustainability Professional (ENV SP). He received a Bachelor of Science degree in Civil Engineering and a Master of Science degree in Environmental Engineering both from Rowan University.

Walt serves as Chair of the NY Water Environment Association's (NYWEA) Diversity, Equity, & Inclusion

Katie Porter is a staff member for CUWA focused on DEI and Water Accessibility/Affordability issues. She currently works for Brown and Caldwell consulting on regulatory compliance, resource planning, treatment, water quality, and aging infrastructure projects and previously served as an Associate Branch Chief in USEPA's Office of Ground Water and Drinking Water, implementing programs to improve system sustainability. Katie has a BS in Chemical Engineering from MIT, MS in Chemical Engineering from Tufts, is a registered Professional

Samantha Black is a Water/Wastewater Engineer at HDR in West Palm Beach, FL. Samantha is the co-chair for HDR's Cross Sector PFAS Practice group and works primarily on water treatment projects including bench and pilot-scale testing, process design, and water quality evaluations.

Dr. Lauren Weinrich is a Principal Scientist in Camden, NJ where she carries out advanced research projects to remediate emerging contaminants, improve drinking water treatment and distribution system operations. She manages a team of professional scientists in the American Water research laboratories in Illinois and New Jersey. Lauren has a BS degree in biology at Marymount University, an MS degree from the UNC-Chapel Hill, and her PhD in environmental engineering from Drexel University.

Peng Dai is Graduate Research Assistant and Ph.D. student in the Department of Civil and Environmental Engineering at South Dakota State University. He is working with Dr. Guanghui Hua, and his current research is focused on the formation and control of regulated and emerging disinfection byproducts.

Simon is Stantec's Water Quality Lead and has over 17 years of experience in the evaluation and chemical optimization of water treatment plants and distribution systems, including three years at Scottish Water before moving to Canada. Simon is a past chair of the Ontario Water Works Association Treatment Committee and is a current contributing author for the new AWWA M65 Water Quality in Distribution Systems manual.

Pete D'Adamo has over 44 years experience as a treatment operator, environmental engineer and scientist, and has been directly responsible for the planning, evaluation, design, and construction management of numerous water treatment facilities ranging in size from 0.1 to 318 mgd. His expertise includes master planning and CIP development, process evaluation and selection, water quality investigations including HABs and PFAS, pilot testing, operations troubleshooting, training and system start-up. Water quality areas of focus include PFAS water quality, regulatory compliance, and research. She is active in regulatory issues and served two terms on the USEPA SAB and NACEPT. In 2017, she was named "Water Quality of the Year" by AWWA/AMTA. She is the Chair for AWWA WSRD Trustees, the Chair of AWWA TEC Council Chairs, the immediate past president of AMTA and is active in the WRF and WateReuse. She currently is a Trustee and technical advisor for WateReuse Florida.

Ms. Sajdak works in with the Water Operations and Field Services team at Great Lakes Water Authority where they provide drinking water to more than 40% of Michigan's population. Her 25 years of experience in the water sector includes time as a professional engineering consultant, project manager and water quality researcher in Manny Teodoro is Associate Professor at the University of Wisconsin and a social scientist of the water sector. He's published dozens of peer-reviewed articles and two books on public management, policy, politics, and finance. He's advised state agencies, UNICEF, investor-owned utilities, and several local governments. He works with water sector leaders on affordability, equity, and regulatory implementation.

As an environmental advocate for over 15 years, Katherine has worked for River Network, American Rivers, Triangle Land Conservancy, Chattahoochee Riverkeeper, and the Center for Progressive Reform. She has led efforts to improve policies for clean and reliable water at the local, state and national levels. In her current position as Vice President for River Programs at River Network, Katherine leads efforts to strengthen the capacity of local groups nationwide for healthier rivers and communities. She coauthored the report Protecting and Restoring Flows in our Southeastern Rivers and the Drinking Water Guide: A Resource for Advocates. She holds a J.D. from the University of Maryland, an M.S. in Conservation Ecology and Sustainable Development from Annie Vanrenterghem is the CEO of infraPLAN, a NY-based firm that helps water utilities plan for their pipes R&R program using their own data and a variety of analytical approaches ranging from statistics to Machine Learning. Since 2008 infraPLAN has helped dozens of utilities throughout the US, size 300 to 7,000 miles. Most recently, infraPLAN developed the platform infraSOFT that streamlines all the planning tasks of an analytical nature; making them faster, more accurate, at a lower cost. Annie holds a PhD from the NYU Tandon School of

Wesley McBride is currently the Division Manager - Asset Management for WSSC Water. For the last 6 years he has been a manager in the Utility Services Department responsible for the maintenance and management of the buried water and wastewater assets. He graduated from West Virginia University with a Bachelor of Science degree in Civil Engineering and is a licensed Professional Engineer in the state of Maryland.

As Managing Principal of Tank Industry Consultants, Chip has been involved in more than 10,000 water tank engineering projects including new tank design and construction, tank evaluations, and tank rehabilitation. He is a member of the AWWA Standards Council and he chairs the AWWA Standards Committee on Steel and Composite Water Storage Tanks, the D101 Standard Subcommittee for Inspection of Water Tanks and Related Facilities Revision Task Force, and the AWWA M42 Manual Revision Task Force.

Can Xiao, is a Civil Engineer III * Team Leader with the City of Phoenix Water Services Department. She currently leads a team that provides technical assistance and long-range planning for the department's water and wastewater infrastructure. She was also the program manager for the Steel Tank Rehabilitation Program for over 6 years. Can has 23 years of professional engineering experience in structural engineering, building code enforcement, and water industry. She holds Master's and Bachelor's degrees in Civil Engineering and is a registered Professional Engineer in the State of Arizona. She is a voting member of AWWA Standards Committee and serves as the Chair on the AWWA Standards Subcommittee on Steel Tank Asset Management Guide (STAM). Treatment Chemicals, Water Filtration Media, and Wastewater Technologies certification programs at NSF International.

During his 32 years with NSF, Blake has also served on the Audit Delivery staff, conducting site audits of many water supply products to NSF standards. Prior to joining NSF, Blake was a Sanitarian for Lenawee County, Michigan where he conducted site assessments for water supplies and wastewater systems.

Blake is active in several water treatment chemical standards committees, and is the current Chair for the AWWA Disinfectants Committee. He has a Bachelor's degree in Geology from Adrian College and an MBA from Walsh College (both in Michigan).

Ron is about to celebrate his 40th year at Carollo Engineers where he has been working on water treatment projects across the country. He has been involved with many ozone generation and contacting projects for many of those 40 years. The ozone experience has led him to be the chair of the Oxygen for Ozone Generation Standard Committee that produced this new standard.

Chi Ho Sham is a Vice President and the Chief Scientist of ERG in Lexington, MA. Over the past four decades, he has worked extensively in drinking water protection and water quality issues. He is an active member of the American Water Works Association (AWWA) and is currently the President. He received his B.A. from the University of Regina in Canada and his M.A. and Ph.D. from the University at Buffalo. He is also an adjunct professor and a research fellow at Clark University in Worcester, Massachusetts.

Michael Karl is Brown and Caldwell's National Optimization Services Leader and a senior project manager who works with utility to help them run their operations and organization more efficiently while leveraging digital technology in a sustainable way to better serve the unique challenges of the water industry. He has been providing optimization and digital services to the water industry for the last 20+ years.

Shannon Wedding, P.E., is the Product Manager for iHydrant™ and develops technology for resiliency and security for water systems. She was a Managing Engineer for the City of Houston Water Drinking Water Operations where she managed large diameter transmission projects, developed emergency response plans, evaluated water quality events, was a project manager for numerous water projects, and was involved in long-range water planning including facility regionalization and expansion. Prior to the City, Shannon spent 7 years as a design consultant and has a 16 years of experience in the industry. She has a B.S. in Civil Engineering and an M.B.A. from Texas Tech University and is currently licensed in Texas, Washington, Oregon and New Mexico. Shannon also currently serves as a City Councilor for the City of Redmond, Oregon.

Alex's time within the water industry has focused on bringing software and data solutions to water utilities. These solutions have focused specifically on both real and apparent, non-revenue water loss issues. Alex has worked extensively with both private and public water utilities across the United States and Canada. Alex holds a B.A. from Arizona State University, School of Technology and Innovation and a MBA from Gonzaga University, Hansen has been water industry pioneer for over 40 years with 16 patents on pipeline condition assessment. A member of AWWA's Water Distribution Condition Assessment committee and former Chair, ASTM F36.20 Committee on the Inspection and Renewal of Water and Wastewater Infrastructure, Hansen founded Electro Scan Inc. in 2011 and Hansen Software Inc. in 1983 becoming a leading enterprise asset management provider which he sold to INFOR Global in 2007 for \$100 million. Hansen earned his MBA, UCLA, BS, UC Berkeley, and plays the baritone sax appearing on the last two CDs of Tower of Power.

Mr. Tume is the Sales Manager and responsible for managing strategic partnerships in North America for ASTERRA. He is a skilled and committed professional with a Masters in Business Administration. He has experience in business development and technical sales for many years, where he has contributed to the marketing, project management, and customer relations in both the advertising and electronic components

Nora Covy is a Manager with Hydromax USA's Water Technologies group responsible for planning, coordinating, and executing projects across the U.S. for multiple technologies, including the Nautilus System for internal leak detection as well as the non-invasive pipe condition assessment technology, p-CAT. Nora is passionate about helping clients better understand their buried infrastructure through the collection and delivery of accurate data.

Dr. Bartlett is a Project Manager with KIT Professionals in Houston, Texas. He has performed work on a wide variety of drinking water, wastewater, and reclaimed water projects, with primary focuses on distribution system water quality, source water quality, and water quality modeling. He's been happy to call Texas home since 2014.

Dr. Kommineni has more than 25 years of experience in water resources and systems modeling, master planning, condition assessments, alternatives analysis, and cost opinions development. He led numerous studies that involved regional planning of water resources that include emerging water supplies such as reclaimed water, desalinated water, aquifer storage and recovery and others. Dr. Kommineni completed his PhD in

Chemical and Environmental Engineering from the University of Arizona in 1998. He is a licensed Professional

Jacob Young has a B.S. and M.S. degree in civil/environmental engineering from Utah State University and over 16 years of experience optimizing water utilities. He applies digital methodologies such as automation, real-time analytics, modeling, and data visualization to help utilities achieve goals with water resource and capital improvement plans, control strategies reducing energy and chemical use, demand and non-revenue water management, and tools facilitating informed decisions across water utility departments.

-Superintendent of Water Distribution for Minneapolis Water Treatment and Distribution Services for the past 21 years.

Danny has joined Aquarius in May 2022. He comes with a decade of experience in the water industry with a focus on water utilities.

He has held sales and marketing positions for Aquestia (previously Dorot) since 2013. These included regional manager of North America, regional manager of APAC, and product and segment manager for waterworks. Danny has vast experience in the telecom infrastructure markets, construction and high-tech startups. He holds a BA in Economics and Logistics from Bar Ilan University.

Alok is a water/wastewater engineer with Arcadis in their Houston office. Alok has 6 years of municipal conveyance, lift station, and treatment plant projects experience in the Louisiana and Texas region. He has been involved in Condition Assessment projects for sewer lift stations for the city of Baton Rouge and potable water systems with San Antonio Water Systems (SAWS).

Annie Vanreenterghem is the CEO of infraPLAN, a NY-based firm that helps water utilities plan for their pipes R&R program using their own data and a variety of analytical approaches ranging from statistics to Machine Learning. Since 2008 infraPLAN has helped dozens of utilities throughout the US, size 300 to 7,000 miles. Most recently, infraPLAN developed the platform infraSOFT that streamlines all the planning tasks of an analytical nature; making them faster, more accurate, at a lower cost. Annie holds a PhD from the NYU Tandon School of

Tina Chen is a Customer Service and Billing Supervisor for the Department of Utility Services at the City of Henderson (NV). Over the last several years, she has developed, built, and managed the City's water conservation program. She has shaped a successful and impactful program in one of the fastest growing cities in the nation without Advanced Metering Infrastructure (AMI) technology.

Tina holds a B.S. in Management from Purdue University and a Master of Business Administration from National Taiwan University.

Tarlan Razzaghi has over 10 years of experience in the field of geospatial science and technology, and currently is a Remote Sensing team lead at DCSE and Spatial Wave Inc. She manages and have technical contribution in satellite and aerial imagery analysis using machine learning and deep learning models, landcover and crop classification, assess land use change, quantify vegetation health, and remote estimation of crop water consumption. She is also involved in Geodatabase and portal design, Development, and Maintenance.

Tarlan Razzaghi has Ph.D. in Remote Sensing and GIS, from University of Nebraska-Lincoln.

Karen is the Director of Water Conservation for San Antonio Water System (SAWS). In this role she leads a team that deploys conservation programs for residential, industrial, and institutional customers resulting in over one billion gallons of savings each year. Outside of SAWS Karen has served on in roles that include the TCEQ Irrigator Advisory Council, the Smart Water Applications Team (SWAT) of the Irrigation Association, the board of the Alliance for Water Efficiency. Karen is currently the Presiding Officer for the Water Conservation Advisory Council which provides input on conservation progress for the Texas Legislature.

Karen has a Bachelor of Science from the University of Michigan and a Master of Public Administration from the University of North Carolina at Charlotte. She has held a Texas irrigation license for 15 years.

J.C. Davis manages the Southern Nevada Water Authority's Enterprise Conservation division. A public relations professional and analyst for more than 25 years, Davis earned degrees in journalism and management from San Diego State University. During his tenure with Las Vegas' regional water agency, he has developed and implemented numerous stakeholder relations and media outreach programs related to water conservation, water resources, environmental issues, water quality, rate structures and infrastructure reinvestment. Davis is a longtime member of the American Water Works Association and is a past vice-chair of the organization's Public

She is the AgriLife Extension lead for the Urban Water Innovation and Sustainability Hub (Urban WISH) at the Dallas Center. In her position, Dr. Bowling works jointly with AgriLife Research and with AgriLife Extension's extensive network of Specialists, Regional Program Leaders, and County Extension Agents to develop and deliver outreach programming and resources to critical audiences on the topics of environmental stewardship, water conservation and water quality protection for urban landscapes and beyond. Through her work, Dr. Bowling strives to build and maintain relationships with a wide range of influential stakeholders and regulatory agencies to ensure that the urban water Extension program reflects the needs and priorities of its diverse clientele throughout the state.

Mr. Bides is a Water/Wastewater Engineer for JEA, a municipally-owned utility in Jacksonville, FL. He has eight years in the water/wastewater industry and five years in engineering and construction. Mr. Bides graduated with a B.S. in Civil Engineering from the University of Florida and attended Auburn University for Construction Management. He is currently pursuing a Master's in Public Policy at Jacksonville University.

Charles Erwin is a project manager and a construction manager with Freese and Nichols. His design and construction management experience includes pump stations, pipelines, and ground storage tanks. He has a BS in math from the United States Military Academy, a BS in civil engineering and a graduate degree in construction management from the University of Alabama in Birmingham.

Kelly is a Vice President and Senior Project Manager in the Atlanta office of Brown and Caldwell. He has 25 years of experience in providing environmental engineering consulting services to municipal clients in the areas of drinking water and wastewater treatment. He has managed the design of facilities with a combined value of over \$1 billion including many Design-Build, CMAR, and Progressive Design-Build Projects. He is a former Chair and Director of the Georgia Section of AWWA and sits on the Board of Directors for River's Alive.

Steve Friedman is a Vice President for HDR Engineering where he manages their Southern California Drinking Water department. He has worked in the water and wastewater consulting industry since his graduation in 1994 from UC Berkeley where he received his Bachelors and Masters of Science in Civil Engineering. He received his Professional Engineering license in 1996, a Project Management Professional certificate in 2005, and is a board-certified environmental engineer.

Peter Tymkiw, PE, is currently a Senior Vice President serving as the Regional Director for the Arcadis Water Business West Region and leads collaborative project delivery activities in the Western United States. Mr. Tymkiw has over 37 years of experience combining business operations, client development, project management, and technical expertise with all phases of water/wastewater treatment plant design and construction. He also serves as the Alternate Board Member for Arcadis on the Water Collaborative Delivery

John Deignan manages DC Water's Lead Free DC program: an ambitious initiative to eliminate all lead service lines in Washington, DC by 2030. He oversees multiple lead replacement programs, including the new block-by-block replacement effort and the District-funded assistance programs. Deignan's work with Lead Free DC has advanced DC Water's strategic effort to embed equity in infrastructure decision-making across the utility.

Deignan first joined DC Water in 2017 focused primarily on drinking water communications and outreach. Previously, he managed community engagement campaigns for regional water utilities at the Metropolitan Washington Council of Governments. Deignan holds a B.S. in Biology from the University of Maryland.

Brian Van Nortwick is an Environmental Engineer at CDM Smith, focused on water supply and treatment projects throughout New Jersey. He holds BS and MS degrees in civil/environmental engineering from NJIT and is a licensed professional engineer in New Jersey. He is an active member in the New Jersey section and currently serves on the Young Professionals, Technical Program, and Water for People committees. At the Association level, he serves on the Young Professionals Committee as liaisons to the Standards Council and Journal AWWA

Shona Robinson is a project engineer specializing in Water Supply and Treatment at Kerr Wood Leidal, a Canadian consulting firm, based on the West Coast. She works across disciplines, with a key role in integrating innovation into KWL's projects. She is particularly interested in effectively understanding and mitigating risk. Shona's background includes a PhD in water treatment, as well as a Master's in environmental chemistry. Vasikan is a Ph.D. student in the Department of Civil and Environmental Engineering at Carnegie Mellon University. Prior to beginning his doctoral work, Vasikan worked at Mott MacDonald and managed projects for renewable energy clients, water utilities, rail and transport clients, and oil and gas clients. Prior to that he received his masters and undergraduate degrees at SUNY Buffalo and NYU, respectively. His research interests broadly include urban water system sustainability, the fate and transport of contaminants in engineered and Ashley Pifer has a PhD in Civil Engineering from the University of Arkansas and is Garver's Distribution System Water Quality Practice Lead. She regularly assists water systems with disinfectant residual management, corrosion control, and regulatory monitoring and compliance.

Siyang Wang is a Water Engineer-In-Training who works for Jacobs Engineering in their New Jersey office. She graduated from New Jersey Institute of Technology with a master's degree in Environmental Engineering. She has over 4 years of working experience and recently passed the PE exam which currently working on applying her license. Her experience combines various water and wastewater projects mainly worked on Water Qualities, Green Infrastructures, Combined Sewer Overflows and MS4 related projects. Besides the technical work, she is also supporting senior team for the business development tasks.

Carrie Knatz is a hydraulics engineer with 21 years of experience in the design of water and wastewater projects. She is an internationally recognized leader in the application of computational fluid dynamics (CFD) modeling for water treatment design. She has served as an officer for the ASCE EWRI CFD Task Committee since inception in 2017 and authored two case study chapters in the CFD book published by the committee in 2019, which was selected for the 2020 ASCE State of the Art of Civil Engineering Award.

Seth Fischer, PE is an engineer with First Utility District of Knox County. Seth lives in Knoxville, TN with his wife and their four sons. Prior to FUD, Seth worked in consulting for nine years with Cannon & Cannon, as a project manager and utilities group director. Seth also served in the U.S. Army as a technical engineer where he was involved with survey missions, design, materials testing, and construction inspection in the U.S. and overseas. Seth holds a BS and MS in civil and environmental engineering from the University of Tennessee Knoxville. Throughout his career in water and wastewater, Seth has focused on modeling collection and distribution systems and on master planning and optimizing operations of those systems.

As Manager of the Water and Wastewater Master Planning Division, with the San Antonio Water System, Bobby Johnson is responsible for the planning of future water and wastewater infrastructure in support of a rapidly growing San Antonio community. He has more than 25 years of experience in the areas of water and wastewater modeling and master planning, trenchless pipeline rehabilitation, development services and capital improvement program management. He also served in the United States Army Reserves as an Environmental Science and Engineering Officer. He has a B.S. in Civil Engineering from the University of Texas at San Antonio. He is married to Angelic. Father to Frances, Cruz, and Christopher and Father-in-Law to Ryan.

Nick Lewis is an Associate in Gannett Fleming's water business line working out of the Baltimore office. For the past 10 years Nick has provided design assistance for a variety of projects and is a member of Gannett Fleming's practice leadership team, dedicated to advancing the technical capabilities of the water business line. Nick is a registered professional engineer in Maryland, Pennsylvania, Virginia, and Florida, and has served on the board for the Chesapeake Section of AWWA for the past 5 years as distribution committee chair and trustee.

Kristina is Director of Engineering for Virginia and Maryland American Water. She serves both states' engineering and GIS teams in providing technical support to Operations, and in planning, design, and construction of utility infrastructure for their water and wastewater operations and new developments across both states. She has experience in supporting utility infrastructure investments before the Virginia State Corporation Commission and has over 15 years of experience in the water and wastewater fields.

Kristina earned her bachelor's degree in Civil Engineering from Clemson University. She served as an active duty Naval officer from 1993-2005 prior to joining American Water. She retired from the Navy in 2015 as a lieutenant Gloria Gutierrez, PE, PMP, is a water/wastewater project manager based out of Gannett's Fleming New York City office. With 10 years of industry experience, she specializes in project management and project liaison services mostly for New York City Department of Environment Protection projects. She earned her Bachelor of Science in process engineering, with an emphasis on process design from the Universidad EAFIT (Colombia) and her Master of Science in environmental engineering from Manhattan College. She serves as a member of the inaugural steering committee for Connected Women at Gannett Fleming™, an employee resource group at Gannett Fleming with the goal to empower and support women to achieve success.

Ann McNeill is the President of MCO Construction and Services Inc., MCO Consulting, Inc., Constructively Speaking, Inc., on the Board of Directors for Better Investing, and Founder of the National Association of Black Women in Construction (NABWIC).

Ann McNeill is also the Founder and President/CEO of the International Mastermind Association, an organization that helps people create work/life balance through goal setting and financial empowerment. The group has produced several authors, such as Dr. Mia Y. Merritt, and a host of other successful entrepreneurs.

Today, Ann is a dynamic speaker that has been featured in many newspapers and magazines, including Success Magazine and the Miami Herald, and was also the cover story for USA Today, Black Enterprise, ABC World News, and was featured on Channel 10.

Nick Lewis is an Associate in Gannett Fleming's water business line working out of the Baltimore office. For the past 10 years Nick has provided design assistance for a variety of projects and is a member of Gannett Fleming's practice leadership team, dedicated to advancing the technical capabilities of the water business line. Nick is a registered professional engineer in Maryland, Pennsylvania, Virginia, and Florida, and has served on the board for the Chesapeake Section of AWWA for the past 5 years as distribution committee chair and trustee.

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Marylia Duarte Batista is a Research Associate in the Building Energy and Environment Division of the Engineering Laboratory at the National Institute of Standards and Technology (NIST) in Gaithersburg, MD. She has been designing and conducting experiments to investigate the impact of water use pattern, temperature, and water quality parameters on the occurrence of opportunistic premise plumbing pathogens. Through her graduate research, she has investigated behavior of disinfection by-products in simulated residential hot water systems. Marylia holds a Master of Science degree in Environmental Engineering (2020) from the University of (HTAES) within the Building Energy and Environment Division of the Engineering Laboratory (EL). She joined the HTAES group in 2021 as a National Research Council Postdoctoral Researcher. Alshae's research currently focuses on understanding how pathogenic bacteria thrive in the plumbing systems of residential buildings. Alshae' is currently focused on the plumbing systems in the Net-Zero Energy Residential Test Facility as well as a water heater laboratory in the EL.

Alshae' received her Doctoral degree from Michigan State University. Alshae's doctoral research focused on understanding the ecology and occurrence of pathogenic species of Legionella in drinking water supply systems. In her graduate studies she enumerated and characterized five disease-relevant Legionella species from large research and educational buildings. She applied molecular biology to determine the occurrence and concentration of pathogenic Legionella species from source to use, including taps and other exposure sites.

Related Publications

1. Logan-Jackson, A. R., Flood, M., & Rose, J. B. (2020). Enumeration and characterization of five pathogenic Legionella species from large research and educational buildings. *Environmental Science: Water Research & Technology*. <https://doi.org/10.1039/D0EW00893A>
2. Logan-Jackson, A., & Rose, J. B. (2021). Cooccurrence of Five Pathogenic Legionella spp. And Two Free-Living Amoebae Species in a Complete Drinking Water System and Cooling Towers. *Pathogens*, 10(11), 1407. <https://doi.org/10.3390/pathogens10111407>
3. Logan-Jackson, A. R., & Rose, J. B. (2022). Water Age Effects on the Occurrence and Concentration of Legionella Species in the Distribution System, Premise Plumbing, and the Cooling Towers. *Microorganisms*, 10(1), 81. <https://doi.org/10.3390/microorganisms10010081>

Dr. Anjuman Islam earned MS & PhD from UMass Amherst in Civil & Env Eng and got her undergrad in chemical eng. She is now working as the Manager, Water Quality division in DC Water. Dr. Islam worked on a wide variety of research projects related to drinking & wastewater treatment, residential water filtration system, premise plumbing etc. She is a part of Washington D.C.'s Legionaries Disease Outbreak Response protocol development team and investigated several Legionaries Disease outbreak cases.

Juan R. Oquendo is a Vice President with Carollo and serves as a Business Development Manager for Florida and Carollo's Miami Office Manager. Juan brings over 18 years of experience leading the evaluation of alternatives and design of water and wastewater facilities. He has been the Principal-in-Charge for many projects for Miami Dade Water and Sewer and NMB Water, including leading Carollo's team during the recent NMB Water Utility Transition. He also has extensive experience in biosolids management, storm water, and climate resiliency. Juan serves as a board member of the Resilient Utility Coalition, was the founding Chair of the FWEA South Chapter and is a registered professional engineer in Florida, Georgia and Texas.

Mr. Braman is the Global Implementation SME for Smart Metering at Jacobs and a recognized leader in the AMI field. He has 12 years of experience in working with water utilities, program management, and business development and is a licensed engineer in the state of Ohio. During his career he has managed several strategic utility projects, ranging from \$50k to over \$100M programs. In 2022 alone, Mr. Braman was directly responsible for implementation programs totaling over 1 million water meters.

Mr. Braman's approach to projects utilizes his hands-on experience from past project successes to implement lessons-learned to avoid unnecessary pitfalls commonly associated with new technology-based projects. The value of his experience managing the largest AMI programs enables Mr. Braman to approach each project uniquely with a range of experience and knowledge.

Anna Bryan-Borja has more than 25 years of experience in utilities and government. As Austin Water's Assistant Director of Business Services, she oversees legislative activities, strategic planning, auditing, emergency management, security, and facility management. She received a Bachelor of Arts from the University of Alabama and a Master of Public Affairs from the University of Texas at Austin. She is a Certified Internal Auditor and Certified Fraud Examiner. She is a member of the AWWA's Strategic Management Practices Committee.

Mr. Ryall has served the water industry for over 20 years and leads Arcadis's Water Financial Services Practice. His experience includes providing financial management consulting services to water, wastewater, and stormwater systems. Mr. Ryall has experience across the United States and provides advisory services to some of the Nation's largest utilities. Mr. Ryall has is a contributing author to industry manuals of practice and is a frequent speaker and national and regional water events.

Donnell Duncan, PE, SE is an Associate Vice President at Arcadis serving as the Account Lead for a Regional Key Client and South Regional Structural Engineer of the Resilience (Water) Business Line. He serves on the AWWA Diversity and Member Inclusion Committee (DMIC) and the Steel and Composite Tank Committee (SCTC). He is a licensed Professional Engineer or Structural Engineer in 27 U.S. states including California. He received a BSc in Applied Physics from Morehouse College as well as a BS and MS in Civil Engineering (structural emphasis) from Georgia Tech. He also earned a Diversity, Equity and Inclusion in the Workplace Certificate from the University of South Florida Muma College of Business. Apart from being a busy water professional, he's the author of 8 books with his most recent publication "A New Mindskin - Innovation, Creativity and Strategic Thinking for the Technical Specialist for CDM Smith. Specifically, she specializes in the development of innovative risk management solutions that maximize sustainable and resilient project outcomes. She is a past at-large board member for the Sustainable Remediation Forum (SURF). She received her BS from Muhlenberg College in Environmental Science and Biology, MS in Environmental Science from Rutgers Univ/NJIT Newark, and PhD from Montclair State Univ in Environmental Management, Evaluating Sustainable Aspects of Hazardous Waste Remediation.

Dr. Lauren Weinrich is a Principal Scientist in Camden, NJ where she carries out advanced research projects to remediate emerging contaminants, improve drinking water treatment and distribution system operations. She manages a team of professional scientists in the American Water research laboratories in Illinois and New Jersey. Lauren has a BS degree in biology at Marymount University, an MS degree from the UNC-Chapel Hill, and her PhD in environmental engineering from Drexel University.

Ruben Rodriguez is the Senior Director of External Communications for American Water. With nearly 15 years of utility experience, he works with executive leadership in developing and leading the implementation of an integrated strategic communications program for American Water consistent with overall company strategy and positioning in the U.S. water industry and in the marketplace. He is responsible for developing and overseeing communications programs, procedures, strategies and practices to help ensure functional excellence.

Matt is the Director of Environmental Compliance and Stewardship for American Water, the largest and most geographically diverse U.S. publicly traded water and wastewater utility company. He and his team support local operations in providing high quality drinking water and discharging high quality wastewater, all while protecting the environment. In the water industry for almost 30 years, Matt has held positions with ASDWA and the NJDEP, has a B.S. in Chemical Engineering, and is a licensed PE.

Erik Rosenfeldt is Hazen's Director of Drinking Water Process Technologies and a senior member of the Firms Drinking Water, Reuse, and Innovations Practice Groups. He has over 23 years experience in addressing drinking water and reuse challenges related to emerging contaminants through research, evaluation, and design projects.

Technical Specialist for CDM Smith. Specifically, she specializes in the development of innovative risk management solutions that maximize sustainable and resilient project outcomes. She is a past at-large board member for the Sustainable Remediation Forum (SURF). She received her BS from Muhlenberg College in Environmental Science and Biology, MS in Environmental Science from Rutgers Univ/NJIT Newark, and PhD from Montclair State Univ in Environmental Management, Evaluating Sustainable Aspects of Hazardous Waste Remediation.

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Verena is a registered professional engineer with more than 19 years of experience in drinking water and wastewater treatment as well as dam engineering. She has a Bachelor of Science in Engineering and Construction and Infrastructure Management, and a Master of Science in Civil and Environmental Engineering.

Verena has been involved in the Newport WTP project since its start of design all the way through construction and follow up projects over the years. She served as the design coordinator and project manager for the Newport project. She has been managing large WTP design and civil works design projects for the last 11 years.

Katie is a Process Engineer with Black & Veatch located in Greenville, South Carolina. Katie has worked on a variety of different civil and process-related projects throughout the southeast, with a focus on drinking water treatment technologies and processes. She has a Master's degree in Environmental Engineering Sciences and is a past chair of the SCAWWA Research Foundation Committee.

Craig Hannah, P.E., is the Engineering Manager for Johnson Controls' Water Infrastructure Technology Team. He is Vice-Chair of the AWWA Metering Standards committee and a George Anderson Award recipient. He also serves on both the AWWA Water Loss Control Committee and Customer Metering Practices Committee, the latter of which he was a former Chair. Craig is a co-author of the AWWA M6, M22, and M36 Manuals. He earned a BS in Aerospace Engineering from Texas A&M University and an MA from Texas Tech University. He

Joe Ball currently serves as Director of Jacobs' Global Smart Metering Practice, and is the resident technology Subject Matter Expert (SME). With 20+ years of experience, Joe is an AMI expert who has worked with water utilities around the world to design and deploy technology to improve their operational efficiency and reduce costs. He helps water utilities understand the technology options available to solve their business challenges. He is vendor independent and dedicated to assisting clients so they make decisions that will positively impact their

Brian Schade is the Meter Services Manager at WaterOne. WaterOne is a water utility with 153,200 metered connections located on the Kansas side of the Kansas City metropolitan area. Brian has worked at WaterOne for 25 years in engineering roles with facilities engineering, distribution engineering, and developer services. Brian is responsible for meter selection, AMI, the Meter Data Management system, meter reading, and utilizing the network for WaterOne's business units. Brian graduated from the University of Minnesota with a BS in Chemical

Joseph Dryer has been working with smart water solutions over the last six years as a product manager and solutions engineer with Sensus, a Xylem brand. Joseph's passion in the water industry is working with utilities to leverage monitoring and data to drive actionable insights that help save time, save money, and do more with less. Joseph holds degrees in Civil and Mechanical Engineering from Rensselaer Polytechnic Institute and

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Bob has been involved in pipe selection, design and installation for most of his 40-year, professional career. A strong advocate for sustainable infrastructure, he is currently Vice President of Technical Development and Standards for Underground Solutions. He Chairs AWWA's C605, C900 and M23 PVC Pipe Subcommittees, and is Vice-Chairman of AWWA's PVC Pipe & Fittings Committee. He serves on ASCE technical committees for Pressure Pipe Design, Sustainable Design of Pipelines, Thrust Restraint, Pipeline Installation Inspection and Seismic Design of Buried Pipelines. He is also active in ASTM International committees on Plastic Pipe (F17) and Sustainability (E60). He is an appointed member of PPI's Hydrostatic Stress Board and a voting member on the Canadian Standards Association's (CSA) Technical Committee on Plastic Pressure Piping (B137). Last but not least, Bob is a former Board Member and Treasurer for Engineers Without Borders (EWB- USA), where he focused on issues

University Illinois in structural engineering and Sc. M. in mathematics from Massachusetts Institute of Technology. He has 50 years of experience in academia and consulting engineering and has worked in the fields of structural engineering and mechanics, materials engineering, wind engineering, seismic engineering, and mathematics.

His experience in pipeline engineering includes research and development in analysis and design of pipelines, structural evaluation of pipeline in seismic events, failure investigation, condition assessment, failure margin and risk analysis of distressed pipes, remaining service life analysis and life extension of degrading structures, fitness for service of corroding pipelines, remediation of distressed pipes, and pipeline asset management.

Dr. Zarghamee's research work is the basis for the PCCP Design Standard (AWWA C304), the Thrust Restraint chapter of the AWWA Manual M9, and the AWWA Standard C305 for CFRP Renewal and Strengthening of PCCP. Dr. Zarghamee is the author of the Water Research Foundation reports on condition assessment of PCCP and two research reports on CFRP renewal of PCCP. He has published more than 180 papers with more than 50 papers on different aspects of PCCP, steel, and FRP/CFRP pipelines.

He was the recipient of ASCE's Bechtel Award in Pipeline Engineering in 2008.

Will Jernigan, PE is the Director of Water Efficiency with Cavanaugh, and has worked with over 1,200 water systems across North America where he is recognized as a leader in the water loss industry. Will is the chair and chief architect behind the AWWA Water Audit Software and the AWWA North American Water Loss Conference. He was also appointed as the US expert to an international task force developing the ISO Water Loss Standards. Will was Co-Principle Investigator for the Water Research Foundation Projects in 2016 and 2020 which formally codified the Level 1 water audit validation methodology.

Tory is a Principal and Director of Operations at Cavanaugh. He has been with Cavanaugh for 23 years, and fulfills many roles including the technical lead on many of the firm's Water Efficiency Projects.

Daniel Rice is the Team Lead and Data Specialist for the Texas Water Development Board's Municipal Conservation Team. He has worked for the state of Texas for over 10 years with experience in water loss auditing, drought technical assistance, and conservation and water data. He has a bachelor's degree in Environmental Studies and a master's degree in Geographic Information Science, both from Texas State University. Casey LeBlanc is a Senior Civil Engineer in the Operations and Maintenance Support Department of the East Bay Municipal Utility District (EBMUD) headquartered in Oakland, California. Casey manages EBMUD's water loss control program. He is active in the Water Technology Alliance, an organization whose purpose is to exchange water loss control expertise between water utilities in California and Denmark. Casey holds a M.S. degree in Civil and Environmental Engineering from the University of California, Davis and is a licensed Professional Engineer in the state of California. His email is casey.leblanc@ebmud.com.

Dan Haddock is the Director of Water Utility Services at INTERA. He has over 25 years of experience in planning, development and management of water supply infrastructure and first-hand knowledge of utility management, regulation, and operations. Mr. Haddock is a licensed professional engineer in multiple states and is active in professional organizations, including serving as a Trustee of AWWA's Water Resource Sustainability Division.

Andrew is a Purdue University professor of civil, environmental, and ecological engineering with 20 years of experience uncovering and addressing problems at the interface of infrastructure materials, the environment, and public health. He directs the Healthy Plumbing Consortium, Center for Plumbing Safety, and other initiatives. His team's discoveries pertaining disaster response and recovery, worker and public safety have influenced decisions by state executives, legislatures, the National Academies of Sciences, and the Chemical Safety and Max Herzog is an impact professional dedicated to engaging diverse stakeholders in the development of tools and strategies that drive community innovation and resilience at the regional level. He is currently working at the nexus of intelligent water systems, technology-led economic development and Great Lake Basin management as a Program Manager with Cleveland Water Alliance. Max holds a BA from Oberlin College in Political Science and Brent Alspach holds both BS and MS degrees in Civil and Environmental Engineering from Cornell University. Brent joined Arcadis in 1997 and serves as the company's Director of Applied Research. He is the Chair of the AWWA Water Quality & Technology Division serves on the advisory / editorial boards for Journal AWWA, Opflow, and the new peer-review journal AWWA Water Science.

Mr. Hoffman holds a BS degree in chemical engineering and MS degree in environmental engineering, both from the University of Texas at Austin. He has over 55 years of experience. He is a past Assistant Director for Planning for the Texas Water Development Board, and helped develop Texas' conservation and reuse programs and currently serves on the Texas Water Conservation Advisory Council to the Texas Legislature. He is currently president of H.W. (Bill) Hoffman & Associates, LLC. He is the recipient of the Alliance for Water Efficiency, 2020

Aubrey has served as the Director of Water Utilities for the City of Lubbock for fifteen years. In this position, he leads water and wastewater system operations that serve over 265,000 customers. He also serves as the liaison for the City of Lubbock with numerous water boards and agencies. He currently serves as chairman of the Region O Water Planning Group and the Texas Tech Civil & Environmental Engineering Industry Advisory Council. He is an appointee to the State's Water Conservation Advisory Council representing the 16 regional water planning groups in the State.

Prior to taking this position in the public sector, he opened an office in Lubbock in 1990 for ENRECO, Inc. an environmental consulting firm. Three years later, he negotiated a buy-out of the office by Enprotec, Inc, which later merged with a sister company to become Enprotec/Hibbs & Todd, Inc. (eHT). For 14 years, he served as the Vice President – Chief Marketing Officer for this regional firm assisting numerous private and public entities to optimize their water and wastewater systems and reduce their environmental liabilities.

Aubrey earned his Master of Business Administration with a Strategic Planning & Marketing Emphasis from Brigham Young University and Bachelor of Science Degree in Civil Engineer from Texas Tech University. He is a Licensed Professional Engineer and Certified Professional Services Marketer. Mr. Spear was inducted into Texas Tech University's Civil & Environmental Engineering Academy in 2010 and named the Texas Society of Professional Engineer's South Plains Chapter Engineer of the Year in 2014.

Aubrey has served on the Executive Board of the South Plains Council of the Boy Scouts of America since 2009. He has been married 38 years to his wife, Donna. They have raised three sons who are all engineers. Aubrey and his wife enjoy spending time with their nine grandchildren.

Jason is a graduate of the University of Texas in Austin. After thirteen and a half years with the Texas Department of Transportation in the Collin County Area Office, Jason used the relationship built with Frisco during a major construction project to join the City of Frisco team. In his 14 years in Frisco, Jason has happily served the residents of Frisco as a project manager, Capital Projects Manager, and for the last 5 years, Assistant

water districts as they face the challenges of North Texas' record-pace development and population growth. He began his career with Freese and Nichols in 2003 as part of Texas A&M's Co-op program and is now a firm principal/owner. Clayton specializes in the full scope of water distribution, wastewater collection and reclaimed water systems, especially for suburban areas working on major redevelopment programs and for once-rural communities facing unprecedented, triple-digit population growth in the coming decade. Clayton is a professional engineer, registered in Texas, and has a bachelor of science in civil engineering from Texas A&M University. He manages Freese and Nichols' Frisco office and is a 2021 graduate of Leadership Frisco. He also is a graduate of the Texas Society of Professional Engineers' Professional Leadership Institute. TSPE's Preston Trail chapter named him the 2018 Engineer of the Year and honored him with its President's Award in 2019 and 2020. Clayton has teamed with the City of Frisco since 2014 on expanding their reuse system. He led the design and management of the Stewart Creek Reuse Pipeline that was awarded the 2018 Large Utility Direct Reuse Award and the 2018 Bob Derrington Reclamation Award both from the American Water Works Association – Texas Section.

Jason is a graduate of the University of Texas in Austin. After thirteen and a half years with the Texas Department of Transportation in the Collin County Area Office, Jason used the relationship built with Frisco during a major construction project to join the City of Frisco team. In his 14 years in Frisco, Jason has happily served the residents of Frisco as a project manager, Capital Projects Manager, and for the last 5 years, Assistant Mr. Hoffman holds a BS degree in chemical engineering and MS degree in environmental engineering, both from the University of Texas at Austin. He has over 55 years of experience. He is a past Assistant Director for Planning for the Texas Water Development Board, and helped develop Texas' conservation and reuse programs and currently serves on the Texas Water Conservation Advisory Council to the Texas Legislature. He is currently president of H.W. (Bill) Hoffman & Associates, LLC. He is the recipient of the Alliance for Water Efficiency, 2020

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Aubrey earned his Master of Business Administration with a Strategic Planning & Marketing Emphasis from Brigham Young University and Bachelor of Science Degree in Civil Engineer from Texas Tech University. He is a Licensed Professional Engineer and Certified Professional Services Marketer. Mr. Spear was inducted into Texas Tech University's Civil & Environmental Engineering Academy in 2010 and named the Texas Society of Professional Engineer's South Plains Chapter Engineer of the Year in 2014.

Aubrey has served on the Executive Board of the South Plains Council of the Boy Scouts of America since 2009. He has been married 38 years to his wife, Donna. They have raised three sons who are all engineers. Aubrey and his wife enjoy spending time with their nine grandchildren.

Charlie (Qun) He, a vice president and chief technologist with Carollo, has more than 23 years of experience in water and wastewater treatment, water quality, and water resources. He leads the company's integrated decision support system team and is leading the research and development of Blue Plan-it® Decision Support System, an advanced water and wastewater system simulation and optimization tool. He is one of the R&D Innovation Manager for Carollo's Research Group, serving as Carollo's Southwest Region R&D lead. Mr. He has extensive experience in water quality and emerging contaminants.

Michael Hwang is a process engineer and technologist in Jacobs' Irvine, CA office. He has 14 years of experience in the study and design of drinking water and reuse treatment facilities. Michael has served as the project engineer on twelve bench/pilot/full scale testing studies, most recently several PFAS bench studies for water. Steve received his PhD from the University of California, Irvine, where he studied the breakdown of emerging contaminants in constructed treatment wetlands. Steve is a water quality specialist in the Applied Research Group at Kennedy Jenks, and focuses on the treatment of contaminants such as PFAS, VOCs, and arsenic.

Rosanne is a Project Management Professional, a registered civil engineer in California, Georgia and Florida and has over 30 years of experience in the municipal water and wastewater field. She has a bachelor's and master's degree in Civil Engineering from California State University, Long Beach and the University of Tennessee, Knoxville. As Engineering Manager for the Yorba Linda Water District, Rosanne is responsible for managing the District's Engineering Department and overseeing all water and wastewater capital and land development. Mahboubeh is currently a PhD candidate at The University of British Columbia (UBC), working on decomposition of per- or poly- fluoroalkyl substances (PFAS) using UV- based process. Prior to UBC, she received her bachelor's and master's degree in chemical engineering from the Amirkabir University of Technology (AUT) in Iran. For her master thesis, she worked on design and application of a spinning disc photoreactor for wastewater treatment. Her current research is on degradation of PFAS, as forever chemicals, in concentrated wastes generated from removal techniques. In particular, she applies UV-based technologies to develop a more efficient and environmentally friendly process for addressing PFAS, as an emerging worldwide concern.

Ms. Ness has worked with CDM Smith in Jacksonville for five years. Prior to CDM Smith, Anna attended the University of Tennessee, then got her Master's degree in Environmental Engineering from the University of Florida. Anna holds her drinking water operator license in Florida and has experience operating pilot-scale advanced treatment facilities. She is also Treasurer of her local AWWA region and an active member of WaterReuse.

Alan Domonoske has an M.S. in Civil and Environmental Engineering, a B.A. in Biochemistry and Cell Biology. He is a licensed professional engineer and a former Certified Grade IV Water Treatment Plant Operator with more than 27 years of experience in water treatment plant piloting, design, construction, and operations. Alan is a Vice President and office manager for Carollo Engineers' Salt Lake City office.

Dr. Zia Bukhari is a principal Scientist at American Water. He is focused on finding solutions to enhance holistic management of one water through research on contaminants of human health concern that may be transmitted by water, wastewater, reclaimed water and after desalination. Dr. Bukhari's research has received various national awards and has been published extensively.

Varenya Mehta is a Water Engineer at KIT Professionals in Houston, Texas. He has 5 years of experience in Air, Water and Wastewater Engineering and Research. Currently, his focus is on Water Transmission Modeling and Master Planning. He received his Master's degree in Environmental Engineering from the University of Illinois – Urbana Champaign. Varenya is currently the YP Chair of Southeast Chapter of Texas AWWA and Treasurer and Board of Director of American Society of Indian Engineers and Architects.

Sarah has six years of experience as a civil engineer in Stantec's Ohio offices. She graduated with honors and her B.S. in Environmental Engineering from The Ohio State University in 2015. She became licensed with her PE in 2021. In her time as a consultant, Sarah has worked on a variety of drinking water-related projects including process design of a UV disinfection system at a 125-MGD facility, a residuals master plan spanning multiple drinking water facilities, and hydraulic modeling for the City of Columbus's distribution system master plan. Sarah has been active on the OAWWA YP Committee for four years now and is the committee's current chair. Over his seven-year career, Trent Jackson has honed his experience as a process designer and engineering consultant in the Carolinas. Trent specializes in piloting technologies for emerging contaminants in the drinking water sector, including activated carbon, ion exchange, and reverse osmosis. Outside of work, Trent is an avid trombonist and vocalist, and he fronts his own reggae band in Carrboro, NC.

Adam Carpenter is the Manager of Energy and Environmental Policy at AWWA's Water Policy and Leadership department in Washington, DC. He serves as an expert and advocate on a diverse set of drinking water issues including source water protection, the energy-water nexus, cyanotoxins, climate change, consumer confidence reports, and other environmental policy concerns. Along with his colleagues, he works to further AWWA's mission of supporting clean, affordable drinking water through sound application of science into policy, sensible regulation, public awareness, and building stakeholder consensus. He holds a Ph.D. in environmental science. Zaid Chowdhury is the Water Treatment Practice Leader for Garver. He has more than 30 years experience in water quality, regulatory compliance, and research. She is active in regulatory issues and served two terms on the USEPA SAB and NACEPT. In 2017, she was named "Water Quality of the Year" by AWWA/AMTA. She is the Chair for AWWA WSRD Trustees, the Chair of AWWA TEC Council Chairs, the immediate past president of AMTA and is active in the WRF and WateReuse. She currently is a Trustee and technical advisor for WateReuse Florida.

Adam Carpenter is the Manager of Energy and Environmental Policy at AWWA's Water Policy and Leadership department in Washington, DC. He serves as an expert and advocate on a diverse set of drinking water issues including source water protection, the energy-water nexus, cyanotoxins, climate change, consumer confidence reports, and other environmental policy concerns. Along with his colleagues, he works to further AWWA's mission of supporting clean, affordable drinking water through sound application of science into policy, sensible regulation, public awareness, and building stakeholder consensus. He holds a Ph.D. in environmental science. Susheera is an engineer with Hazen and Sawyer and works primarily in Drinking Water and Reuse. She has more than 3 years of experience working with water treatment, water quality characterization, analytical method development, T&O occurrence and removal in drinking water utilities.

Zaid Chowdhury is the Water Treatment Practice Leader for Garver. He has more than 30 years experience in water quality, regulatory compliance, and research. She is active in regulatory issues and served two terms on the USEPA SAB and NACEPT. In 2017, she was named "Water Quality of the Year" by AWWA/AMTA. She is the Chair for AWWA WSRD Trustees, the Chair of AWWA TEC Council Chairs, the immediate past president of AMTA and is active in the WRF and WateReuse. She currently is a Trustee and technical advisor for WateReuse Florida.

Director of Production – Michelle Wirth is responsible for all aspects of water production from WaterOne's source, treatment, pumping and storage facilities including plant operations, facilities engineering, water quality lab, emergency management, process engineering, data analytics, and facilities maintenance. She joined the Water District in 2015 as Assistant Director and was promoted to Director in 2018. Ms. Wirth has over 20 years of experience dedicated to utility engineering and management. She previously served in local government as the Environmental Services Manager with the City of Olathe, Kansas and with an engineering consulting firm. She has a Master of Science in Engineering Management from the University of Kansas, and a Bachelor of Science in Civil Engineering from North Dakota State University. Ms. Wirth is a registered Professional Engineer in the states of Kansas and Missouri and holds a Class IV Water Operator License in the State of Kansas. She serves on several statewide and regional industry associations, boards, and committees dedicated to planning, policies, and management of water resources. She represents Public Water Supply stakeholders on the Missouri Regional Advisory Committee (RAC), established by the Kansas Water Authority for long-range statewide water planning. Ms. Wirth is also the WaterOne's representative on the Board of Directors of the Kansas River Water Assurance District and Treasurer for the Missouri River Public Water Supply Association. Currently, she is serving on the

Bob is an Associate Vice President and serves as the Global Practice and Technology Leader, Water at Black & Veatch. Bob received a B.S. in Chemical Engineering from the University of Colorado and a M.S. in Environmental Engineering from the University of Kansas. He has served as both the President of the International Ultraviolet Association and as the Chairman of the International Ozone Association – Pan American Group as well as the chair of the Missouri AWWA section Research Committee.

Andrew is based in Duluth, MN and is the Resilience Practice Area Lead for West Yost Associates. He has led projects to develop the American Water Works Association cybersecurity resources since 2019. He currently leads West Yost's partnership with Idaho National Laboratory to bring Consequence-driven, Cyber-informed

Paul brings in-depth knowledge of cyber and physical security, internal investigations, law enforcement and national security to every client matter. He chairs Hunton's national security practice and co-chairs the firm's multidisciplinary cyber and physical security task force and its energy sector security team.

Paul assists clients from a wide range of sectors with security, law enforcement, electronic surveillance and privacy issues. Paul regularly advises companies on risk management, preparedness, cyber incident response, SAFETY Act protection, compliance, litigation, policy and legislation.

Prior to joining Hunton Andrews Kurth LLP, Paul served as senior counselor for cybersecurity and technology to the Director of the Federal Bureau of Investigation, Robert S. Mueller. In that position, he advised the FBI Director on programmatic, policy and legal issues relating to cyber, counterintelligence and counter-terrorism. He also represented the FBI in senior-level discussions with other agencies, the White House, Congress and industry.

Paul previously served on the US Senate Judiciary Committee as counsel to the Senate Assistant Majority Leader, Richard J. Durbin, where he wrote legislation and provided advice on criminal and national security issues. He is a former Assistant US Attorney in the District of Maryland, where he prosecuted all manner of criminal violations and oversaw cyber crime and IP cases.

Paul has been an adjunct professor of cybersecurity law and policy at George Washington University, a guest lecturer on cybersecurity and privacy at various universities, and an instructor at the National Institute for Trial Advocacy. He served on the Virginia Cyber Security Commission, appointed by the Governor; and is currently a member of the Maryland Cybersecurity Council, appointed by the State Attorney General; and a member of the Montgomery County Criminal Justice Coordinating Commission, appointed by the County Executive (Chair in 2015).

Bar Admissions:

Charlene Kormondy is a Physical Scientist in the Water Security Division at the U.S. EPA. Currently, her work focuses on outreach, communication, and providing trainings to water utilities across the country on America's Water Infrastructure Act (AWIA) Section 2013, which requires community drinking water systems that serve over 3,300 people to develop or update risk and resilience assessments and emergency response plans. She also leads AWIA certification tracking efforts and database management. Previously, Charlene completed an Oak Ridge Institute for Science and Education Fellowship in the Standards and Risk Management Division of EPA's Office of Ground Water and Drinking Water. Charlene earned her master's degree in Environmental Science and Management, with a focus on water resources management, from the Bren School of Environmental Science and Management at the University of California, Santa Barbara. While in graduate school, Charlene completed a summer internship at EPA in the Office of Wastewater Management, Water Permits Division. Charlene also holds

Tom Kennedy is the General Manager at Rainbow Municipal Water District in northern San Diego County. He has been working in the water/wastewater field for over 35 years in both the public and private sectors starting while in college at San Diego State. He has also served on the Board at the San Diego County Water Authority since 2015 and serves in various capacities within CSDA, AWWA, and San Diego LAFCO. Tom holds a Bachelor's in Aerospace Engineering (SDSU), a Master's in Public Administration (CSUF) and a law degree from the

Ms. Muir is an environmental engineer specializing in water and wastewater energy projects. Ms. Muir is a specialist in the planning, design and management of water and wastewater treatment facility sustainability and energy projects. Ms. Muir's process engineering background provides unique insight on energy projects at water/wastewater facilities. Her experience includes establishing energy management programs, conducting energy evaluations of process and pumping systems, calculation of energy and cost savings, design of improvements, and obtaining project funding. A passionate advocate of energy efficiency and the development of renewable energy opportunities, combined with an in-depth understanding of financing options, energy market analysis and project requirements contribute to her ability to consistently bring energy projects to fruition. Ms. Muir also works with the Hydraulic Institute in developing pump efficiency testing and training

Mr. Ryall has served the water industry for over 20 years and leads Arcadis's Water Financial Services Practice. His experience includes providing financial management consulting services to water, wastewater, and stormwater systems. Mr. Ryall has experience across the United States and provides advisory services to some of the Nation's largest utilities. Mr. Ryall has is a contributing author to industry manuals of practice and is a frequent speaker and national and regional water events.

- CFO for Denver Water since 2010

- Previously worked for Ernst & Young, Arcadis, and Carollo Engineers providing financial planning and rate services to utilities nationwide.

- Appointed by EPA to Environmental Financial Advisory Board and Denver Mayor Hancock to serve on Denver Urban Renewal Authority Board of Directors

- Finance manages Accounting, Financial Planning and Performance, Rates, Treasury, Customer Contact Center and Water Sales.

Water's cash operation, oversight of retirement plans, funding for capital program, and debt and risk management programs. She plays an instrumental role in developing strategies to address financial challenges the utility faces currently and in the future.

Usha is currently a vice chair for American Water Work Association's (AWWA) Finance, Accounting and Management Control (FAMC) Committee.

Shilo Williams is the Water/Wastewater Superintendent for the City and Borough of Sitka, Alaska. She has 19 years of experience managing water and wastewater utilities.

Mr. Stephen Barr is the Program Manager for the Community Engineering Corps (CECorps), employed by American Water Works Association (AWWA) in Denver, Colorado. Steve has over 10 years of experience in the international development and environmental engineering industries, having received his B.Sc. in Environmental Engineering from Cal Poly San Luis Obispo, and his M.Sc. in Science, Technology, and International Development from the University of Edinburgh. Throughout his career, Steve has balanced his experience both domestically and abroad, most recently managing business development efforts for an international development consultancy, primarily focusing on the fields of local governance, environment, and water and infrastructure for US Agency for International Development programs. Prior to this, Steve worked for various consulting firms throughout the West Coast performing environmental site investigations and construction oversight on behalf of Department of Defense, State offices, and local agencies. During and in between consulting, he volunteered for Engineers Without Borders – USA and other international non-profit organizations to conduct water and wastewater projects in Cameroon, Honduras, Thailand, and the West Bank. As AWWA's representative to and program manager for CECorps, Steve works with AWWA Sections and members to provide volunteer opportunities for short-term engineering and technical services to underserved communities across the US. Steve provides training to CECorps volunteers, coordinates with State and Federal agencies to identify and