

***2013 MSSC Annual Salinity Summit***  
***“Embracing Innovations & Overcoming Barriers”***  
***February 14-15, 2013***



**February 14-15, 2013**

**SPEAKER BIOGRAPHIES**

**2013 MSSC Annual Salinity Summit**  
***“Embracing Innovations & Overcoming Barriers”***  
**February 14-15, 2013**



**Opening & Keynote Speaker**  
**Thursday, February 14, 2013**  
**8:00 a.m. - 8:30 a.m.**

# Michael Gabaldon

**Mr. Michael Gabaldon** is the Director Technical Resources for the Bureau of Reclamation. The position, located in Denver, Colorado, oversees Reclamation's Technical Service Center, the Research and Development Office, the Power Resources Office, and the Design, Estimating, Construction, and Dam Safety Office.

He began his career with Reclamation in 1982 as a Construction Engineer at the Montrose Projects Office in Colorado. In 1989, he relocated to the Durango Projects Office where he was a design engineer on the Anima-La Plata Project. In 1991, he moved to the Bend Construction Office in the Pacific Northwest Region, where he served as the Office Engineer. In 1996, he was Reclamation's Pacific Northwest Regional Liaison Officer in Washington, D.C. In 1998, he became the Albuquerque Area Manager where he was responsible for Reclamation program activities in the Rio Grande basin, the Pecos River basin, and the Canadian River basin - spanning three states from southeastern Colorado through New Mexico and west Texas.

In 2001, he relocated to Washington, D.C, to serve as the Deputy Director of Operations, and in 2003, he became the Director of the Policy, Management, and Technical Services in Denver, Colorado where he was responsible for the Office of Program and Policy Services, Chief Information Office, Technical Service Center, Research and Development Office, International Affairs, and Management Services Office.

He also served as the Secretary's Designee and Chairman of the Glen Canyon Dam Adaptive Management Work Group for 5 years.

A native of New Mexico, Mr. Gabaldon earned a Bachelor of Science degree in Civil Engineering from the University of New Mexico, and holds a degree in Water Technology/Utilities from New Mexico State University. He also completed the Executive Leadership Program at Harvard University's Kennedy School of Government. He is a registered Professional Engineer.

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**Legislative/Funding**  
**Thursday, February 14, 2013**  
**8:30 a.m. – 10:00 a.m.**

# John O'Donnell

**John O'Donnell** is a partner in Murray, Montgomery and O'Donnell, a public affairs firm that specializes in representing local governments, special jurisdictions and utilities: water and electric. John's firm represents the City of Phoenix in Washington, DC. Mr. O'Donnell has worked with many Phoenix elected officials and professional staff on light rail and Federal Transit Administration proposals.

# Eric Sapirstein

After leadership positions at the U.S. Environmental Protection Agency (EPA) and Washington-based consulting firms, **Eric Sapirstein** founded ENS Resources, Inc. in 1986. For more than 20 years, his firm has focused on legislative and regulatory affairs consulting for local and regional governments as well as national organizations that serve the public's interests.

Throughout his career, Mr. Sapirstein has been a recognized leader in environmental protection and innovative energy policy issues. Prior to establishing ENS, Mr. Sapirstein was a Policy and Governmental Affairs Analyst with JSCF, Inc. He focused on regulatory and legislative initiatives related to Appropriations, the Resource Conservation and Recovery Act, the Clean Water Act, the Safe Drinking Act, and forestry management.

Mr. Sapirstein also served as an Associate with LRMC, Ltd., an association management consulting firm. He was the lead official overseeing the legislative and regulatory interests of environmental association clients as well as individual private clients. Mr. Sapirstein worked closely with Congressional committee members and staff, including committees on Appropriations, Budget, Environment and Public Works, Finance, Transportation, Energy and Commerce, and Ways and Means.

Before working on behalf of clients, Mr. Sapirstein represented the EPA before Congress. He advised senior Agency officials on strategies regarding waste management, radioactive materials and clean water policy issues. He represented the Agency with members of Congress, Congressional staff, and federal and state agencies. Mr. Sapirstein received two Special Achievement Awards, recognizing superior work that helped ensure passage of the Superfund Act during the 96th Congress.

Mr. Sapirstein earned a Master's of Public Administration (MPA), with a concentration in public finance, budgeting, and urban administration, from The George Washington University. He was nominated and selected to compete as a Presidential Management Intern. He holds a Bachelor's Degree in Political Science from Boston University.

## Ken Kirk

**Ken Kirk** is the Executive Director of the National Association of Clean Water Agencies (NACWA), formerly known as the Association of Metropolitan Sewerage Agencies (AMSA). Prior to joining NACWA, he worked with a Washington, DC-based private consulting firm, where he had responsibility for the management of several associations, including AMSA; worked in the Environmental Protection Agency's Office of Legislation; and served as Public Affairs Manager at the Water Environment Federation. Mr. Kirk has degrees from New York University, the Georgetown University Law Center and the George Washington University Law Center, where his specialty was environmental law. Mr. Kirk also serves as chair of the Water Infrastructure Network, a broad-based coalition dedicated to preserving and protecting the health, environmental and economic gains that America's drinking water and wastewater infrastructure provide. Most recently, he helped found and served as president of the Clean Water America Alliance, a 501(c)(3) nonprofit organization established to explore the complex issue of water sustainability and plan for the future by improving public awareness that advances holistic, watershed-based approaches to water quality and quantity challenges.

## Tom Curtis

**Tom Curtis** serves as the AWWA Deputy Executive Director for Government Affairs. Before assuming this position, Tom served for over twenty years with several state organizations, including jobs as the director of Natural Resources for the National Governors' Association and Deputy Director of the Environmental Council of the States. He has over 25 years experience working closely with Congress and EPA on drinking water and other environmental issues.

Tom holds an undergraduate degree in political science and a Masters Degree in Public Administration from West Virginia University, both granted with the highest honors. As an undergraduate he was elected to Phi Beta Kappa, the national scholastic honorary. He worked for two governors in West Virginia and served with the US Army in Vietnam. His hobbies include camping and other outdoor pursuits. Tom is hiking the Appalachian Trail one section at a time, starting each hike where he finished the previous one. To date, he has hiked over 800 miles of the Trail.

Tom is married to Penny Curtis. They have two children and reside in Arlington, Virginia.

## **Josh Johnson**

**Joshua Johnson** is a Republican Professional Staff Member on the U.S. Senate Energy and Natural Resources Committee. As a member of the Republican staff, he is responsible for the Water and Power Subcommittee, and issues pertaining to energy efficiency. Prior to joining the Senate, Mr. Johnson was the Staff Director of the U.S. House Resources Committee's Subcommittee on Water and Power. Mr. Johnson has a Masters Degree from the London School of Economics and an M.A. in National Security and Strategic Studies from the U.S. Naval War College.

## **Sara Tucker**

**Sara Tucker** is a Professional Staff Member on the U.S. Senate Energy and Natural Resources Committee. She brings extra expertise on public lands issues to the Committee. The Pennsylvanian formerly directed government affairs at Trout Unlimited, a national organization of 140,000 members. With degrees from Cornell University and University of Michigan School of Natural Resources and Environment, she also has worked for Earthjustice and Sen. Dianne Feinstein.

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**From Research to the Field, Domestic and  
International**  
**Thursday, February 14, 2013**  
**10:15 a.m. – 11:45 a.m.**

## Val Frenkel

**Dr. Val S. Frenkel** is an eminent figure in the water industry with his expertise in water and wastewater treatment, water reuse, and membrane technologies, including desalination. Equally instrumental was Dr. Frenkel's role in the development of low pressure membrane technologies and applications which are used and taught at the university level.

Dr. Frenkel's works go far beyond his job scope as they are published extensively both in the US and abroad, authoring several patents. He has published more than 100 articles in the areas of water, wastewater treatment, desalination and salinity management. For his works, Dr. Frenkel has received numerous accolades from the likes of the International Desalination Association and American Academy of Environmental Engineer. At the same time, Dr. Frenkel is also a Diplomat, Water Resources Engineer (D.WRE) of the American Academy of Water Resources Engineers (AAWRE), which is part of the Academy of the Civil Engineering Certification, Inc. (CEC).

## Randy Shaw

**Randy Shaw** graduated from New Mexico State University with a BS degree in Agriculture Engineering. He worked with Native Americans for 21 years in the Bureau of Indian Affairs including managing the Irrigation Division of the 100,000 acre San Carlos Irrigation Project and serving as a technical consultant to the Six Middle Rio Grande Pueblos concerning sensitive water issues. He has managed the Brackish Groundwater National Desalination Research Facility since August 2010. Mr. Shaw is licensed as a Civil Engineer in the state of New Mexico.

## Brent Alspach

**Brent Alspach** holds both Bachelor and Master of Science degrees in Civil and Environmental Engineering from Cornell University in Ithaca, NY. Brent joined Malcolm Pirnie / ARCADIS in 1997 and currently serves as a Senior Environmental Engineer specializing in potable water quality, treatment, and water resources. Mr. Alspach is an internationally recognized authority on desalination with over 60 publications and presentations covering subjects ranging from applications and technology to economics.

He is a contributor to the American Water Works Association's Manual of Practice for seawater desalination, and serves as the current chair of the Association's Membrane Processes Committee. Mr. Alspach has given invited presentations on desalination to the Urban Water Institute and Sandia National Laboratories, among other institutions, and his presentation at the 2012 AWWA Membrane Technology Conference was

honored with the “Best Paper” award for the event. He also serves as a technical advisor to both a large Canadian university research consortium and a regional university-proposed effort to implement a sustainable solution for rehabilitating the Salton Sea. Mr. Alspach works out of the company’s office in idyllic Carlsbad, CA, many hundreds of miles from the snowy winters of upstate New York.

## **Maurice Neo**

**Maurice Neo** is currently a Deputy Director in the Industry Development Department (IDD) of the Public Utilities Board (PUB) Singapore. Concurrently, he is also holding the appointment of Deputy Director of the Internationalisation arm in the Environment and Water Industry Programme Office (EWI) which was formed in 2006 to spearhead the Singapore's government efforts to grow the Environmental and Water sector, one of the new key growth sectors identified for Singapore.

Maurice joined the Ministry of Environment in 1994 as an Engineer. He was actively involved in the policy planning and development of numerous drainage, water and wastewater treatment facilities in Singapore, design and implementation of many drainage and sewerage construction projects and management of several water treatment and supply facilities. He was posted to the PUB in 2001 when PUB was transferred from the Ministry of Trade and Industry to the Ministry of Environment and Water Resources.

As a Deputy Director in IDD and EWI, Maurice manages a team which works closely with EWI and all related government agencies to formulate and implement engagement strategies to attract investments into Singapore as well as facilitate project implementation. He is instrumental in formulating and implementing engagement strategies, with support of PUB account managers; to encourage Singapore based water companies to increase their economic activities in Singapore and also business activities out of Singapore. As part of his portfolio, Maurice works closely with SWA to grow the Singapore Water Industry; and secure international projects for Singapore based water companies focusing on the SEA region. Maurice was also instrumental in setting up the WaterHub, PUB’s very own training and R&D Centre which is also the hub for technology development, learning and networking for the water industry, both local and internationally. He is also actively involved in the organization of the Singapore International Water Week, the global platform for water solutions.

Maurice graduated with a Bachelor of Engineering (Civil and Structural) (Hons) from the Nanyang Technological University in Singapore in 1994. In 2005, he completed the Masters of Business Administration (MBA) (Nanyang Fellows) programme at the Nanyang Business School and the International Management Programme at Sloan Business School in Massachusetts Institute of Technology under a PUB scholarship. For the MBA programme, he was awarded the Dean’s Outstanding Academic Achievement Award.

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**Luncheon Keynote Speaker**  
**Effective Partnering: The Public End of Public-Private-Partnerships**  
**Thursday, February 14, 2013**  
**11:45 a.m. – 1:15 p.m.**

## Jorge Arroyo

Jorge Arroyo directs the Texas Water Development Board (TWDB) Innovative Water Technologies (IWT) Programs whose goal is to advance innovative water supplies in Texas through research, demonstration projects and educational outreach efforts.

Mr. Arroyo began his career as a Civil Engineer in Costa Rica working for the Costa Rican Water Institute and, later, for the United States Agency for International Development.

He is a graduate of the University of Costa Rica and of the Loughborough University in England. In 2006 he received the International Desalination Association inaugural fellowship award to conduct research under the auspices of the Singapore Public Utilities Board.

A longtime legislative advocate with extensive experience in water-related issues, Davis represented the Santa Clara Valley Water District before the Legislature for 12 years. Prior to his work at Santa Clara Valley Water District, he served as Assistant Executive Director for the California Municipal Utilities Association and represented a number of private sector clients as a consultant.

## Chris Rayburn

**Mr. Rayburn** is the Director of Research Management for Awwa Research Foundation, with overall responsibility for planning and overseeing the Foundation's research program. He has been with AwwaRF for nine years. Prior to this, he managed the Denver office of IT Corporation, an international engineering consulting firm. Mr. Rayburn is a registered professional hydrogeologist with fifteen years of experience in the areas of water supply, resource management and groundwater protection.

## Thaddeus Wilson

**Mr. Wilson** is responsible for M3's coverage of the seniors housing and medical office sectors in North America. Mr. Wilson has overseen the structuring and financial underwriting of investment opportunities for Evergreen and is involved in developing M3's real asset principal investment activities. Additionally, Mr. Wilson has executed strategic financial advisory and private equity capital raising transactions for the firm, with a focus on the seniors housing and medical office sectors. Mr. Wilson is based in M3's Chicago office.

## **Candace S. Chandra**

**Candace Chandra** is a Climate Finance professional with a broad perspective. She has 17 years experience in both technical and financial areas. While working at the World Bank and World Health Organization, Ms. Chandra actively planned and managed large scale infrastructure projects in the water, health, waste, and renewable energy fields. Additionally, she conducted risk management, market assessments, and capital investment for public private partnerships (PPP) and international finance institutions in the USA, Balkans, Central Asia, Middle East, and East Asia. After leaving the United Nations, Ms. Chandra held executive positions with Canary Strategies LLC and Cactus Health Services, Inc. Ms. Chandra taught public policy courses focusing on global climate issues at Princeton University and the University of California at Irvine. Most recently, Ms. Chandra started AQEX LLC, a full services firm specializing in environmental markets and natural capital accounting with a particular expertise in water.

Ms. Chandra holds a MS in Applied Health and Development Policy from the School of Public Health and Tropical Medicine at Tulane University and a BA in Physical Anthropology from the University of Texas at Austin.

## **James Lee Murphy**

**James Lee Murphy**, Esq. is the Executive Director of Water Resources and Utility Operations for the Guadalupe-Blanco River Authority. A graduate of Tulane University and the Tulane University School of Law, Jim practiced law in the oil and gas industry, served as an administrative law judge for the Texas Water Commission, and represented the Trinity River Authority as general counsel for 16 years. He has been with GBRA for the past five years. Jim has served on the State Bar of Texas' Board of Legal Specialization in Administrative Law, is the immediate past president of the San Antonio Bar Association Environmental Law Section, and serves on the Guadalupe Bay and Basin Stakeholder Committee among other professional and civic endeavors.

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**Direct Potable Reuse, How Close To Reality?**

**Thursday, February 14, 2013**

**1:30 p.m. – 2:45 p.m.**

## **Dr. Robert Mace**

**Robert Mace** is a deputy executive administrator for Water Science and Conservation at the Texas Water Development Board. Managing a group of 66 staff, they study rivers and aquifers of the state, promote water conservation, and pursue innovative technologies such as desalination, rainwater collection, and water reuse. Robert has a BS in geophysics, a MS in hydrology from the New Mexico Institute of Mining and Technology, and a PhD in hydrogeology from the University of Texas at Austin. He has over 20 years of experience working with water in Texas.

## **Alan Plummer**

**Alan H. Plummer, Jr.**, is founder and Chairman Emeritus of the Board of Alan Plummer Associates, Inc. He has worked in the civil/environmental engineering water resources field for more than 48 years and has technical expertise in water reclamation and conservation.

Alan H. Plummer, Jr., began his career in 1964 after graduating from Lamar University in Beaumont, Texas, with a degree in Civil Engineering. He received his Master of Science degree in Environmental Health in 1968 from the University of Texas at Austin.

Since 1978, Alan has provided leadership in the firm of Alan Plummer Associates, Inc. (APAI), a consulting engineering firm recognized as a leader in the environmental and water resources field in Texas. APAI has Texas offices located in Fort Worth, Dallas, Austin, and Houston.

Currently, Alan is involved in some major water reuse projects in which highly treated municipal effluent is being used to augment the water supplies of several large water districts in the state of Texas. He is recognized as a visionary and expert in the area of water reuse and conservation.

Alan Plummer is a registered professional engineer in Texas and four other states and is a Board Certified Environmental Engineer (BCEE). He has been an active member as well as served as officers for a number of technical and professional engineering organizations. He is past President of the Texas Water Conservation Association (TWCA) and is currently Chair of the TWCA Water Reuse Committee. He also served as the initial President of the WaterReuse Association Texas organization. He was presented the 2008 Award of Merit by the WaterReuse Association for his contributions to water reuse. In 2009 he received the WEAT Lifetime Achievement Award for contributions towards the improvement of the water environment. In 2011 WEAT established the Alan H. Plummer Environmental Sustainability Award.

He has been recognized as a Distinguished Alumni of Lamar University's Civil Engineering Department. In 2007 he was awarded membership in the University of Texas's Civil, Architectural, and Environmental Academy of Distinguished Alumni.

Most importantly, Alan and his wife Peggy have two daughters, Jamie and Patti, and four grandchildren.

Alan acknowledges that his family's support, coworkers' contributions, and clients' confidence have greatly enhanced his career. He recognizes that his trust in God as his Source has been the backdrop for any success he has achieved.

## Rhodes Trussell

The founder of Trussell Technologies, Inc., **R. Rhodes Trussell**, has a B.S., M.S., and Ph.D. in Environmental Engineering from University of California at Berkeley. Dr. Trussell is a registered Civil and Corrosion Engineer in the State of California with 35 years of experience who has authored more than 200 publications. He is recognized, worldwide, as an authority in methods and Criteria for Water Quality and in the development of advanced processes for treating water or wastewater to achieve the highest standards. He has worked on the process design for dozens of treatment plants, ranging from less than 1 to more than 900 mgd in capacity and has experience with virtually every physiochemical process and most biological processes as well. Dr. Trussell is available to review and advise on any complex water quality problem. He has a special interest in emerging water quality problems and reuse.

Dr. Trussell served for more than ten years on EPA's Science Advisory Board, serves on the Membership Committee for the National Academy of Engineering, and as Chair of the Water Science and Technology Board for the National Academies. For the International Water Association, Trussell serves as a member of the Scientific and Technical Council, the Editorial Board and on the Program Committee.

## David Sloan

**David Sloan** is a senior process engineer and Associate with Freese and Nichols, Inc. in Fort Worth. He has over 29 years' experience in the field of water and wastewater treatment and reuse. Mr. Sloan has a BS and MS in Civil Engineering from the University of Texas at Austin. He is a member of WEF, AWWA, AMTA and the WateReuse Association. David is a board-certified environmental engineer, and serves on the AWWA, WEF and WEAT Water Reuse Committees and the Potable Reuse Committee of the WateReuse Association. He is the project manager for CRMWD's Raw Water Production Facility in Big Spring, Texas.

# Richard Nagel

**Rich Nagel** was named General Manager by the West Basin Municipal Water District Board of Directors in May 2006 and was previously West Basin's Manager of Water Quality since 2000. He is responsible for West Basin's Water Reliability 2020 Program that includes providing a safe high-quality supply of water, reducing the service areas use of imported water, doubling the recycled water production at the nationally recognized Edward C. Little Water Recycling and Research Facility, doubling conservation initiatives, increasing public education and development of ocean-water desalination as an alternative water supply.

Nagel has over 25 years of experience in water supply and wastewater, water quality regulatory programs, research and development programs with numerous public and regulatory agencies on groundwater quality issues, remedial investigation activities and various water treatment studies overseeing numerous reports on groundwater studies and the effects of various contaminants. He was named 2011 Person of the Year by the WateReuse Association for his significant contributions to the advancement of water reuse and dedication to the water reuse community.

A registered engineer, Nagel graduated from San Diego State University with a Bachelor of Science in Civil Engineering. He is on the Chair of the South Bay Steering Committee for the Greater Los Angeles Integrated Regional Water Management Plan, Board of Directors of the WateReuse Foundation and California WateReuse Association, Board Member of the Urban Water Institute and the Multi-State Salinity Coalition, alternate Board member of the National Water Research Institute and New Water Supply Coalition, served on DWR's Recycled Water Task Force, and the Los Angeles County Department of Public Works Recycled Water Task Force.

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**Development & Implementation of Salinity &  
Nitrate Management for California’s Central  
Valley**

**Thursday, February 14, 2013  
3:00 p.m. – 4:15 p.m.**

## **Karl E. Longley**

**Karl E. Longley**, of Fresno, is a Professor and Dean Emeritus of engineering at California State University, Fresno, and he is a the Water Resources Group, California Water Institute. Dr. Longley's professional practice has focused upon water and wastewater treatment and supply, Dr. Longley is a member of the American Water Works Association, the American Society of Civil Engineers, the Nature Conservancy, the American Academy of Environmental Engineers, and the Water Environment Federation. Dr. Longley earned a Bachelor of Science degree from the University of New Mexico, a Master of Science degree and doctorate degree from the Johns Hopkins University, and he is a Board Certified Environmental Engineer.

## **Daniel Cozad**

**Daniel Cozad** is the president of Integrated Planning and Management, Inc. a consulting and contracting organization working throughout California specializing in water and resources planning and management and integration of stakeholders needs to produce value and community benefits. He is also the contract Executive Director of the Central Valley Salinity Coalition. His background in regional policy and funding is based in almost 10 years at the Santa Ana Watershed Project Authority working with governments, communities and business to achieve regional goals. His personal interests beyond his family include restoration of a 100 year old craftsman home, citrus grove, and gardens, endurance bicycling, spinning and California wine and cuisine.

## **Tess Dunham**

**Theresa "Tess" A. Dunham** is a shareholder with the law firm of Somach Simmons & Dunn in Sacramento. Ms. Dunham's practice emphasizes water quality law including National Pollutant Discharge Elimination System (NPDES) permitting for wastewater and stormwater, total maximum daily load issues, waste discharge requirements, conditional waivers from waste discharge requirements for irrigated agriculture, and agricultural resources. Prior to joining Somach Simmons & Dunn, Ms. Dunham provided environmental consulting services to public agencies and private entities, and was Director of Water Resources for the California Farm Bureau Federation, the state's largest farm organization with more than 94,000 members in California. Ms. Dunham is a graduate of the California Agricultural Leadership Program (Class 29). She earned her J.D. from University of Pacific, McGeorge School of Law, in 1996, and is a member of the State Bar of California

## Timothy F. Moore

**Mr. Moore** founded Risk Sciences in 1986. His firm specializes in developing site-specific water quality criteria and NPDES permit limits for municipal, industrial and stormwater dischargers throughout the U.S. He has successfully negotiated state and federal requirements from ammonia, chlorine, heavy metals, pesticides, dissolved solids, pathogens, nutrients, whole effluent toxicity, chemicals of emerging concern and TMDLs. Tim has been working on water quality issues in California for nearly 25 years. Consequently, Tim lives on Southwest Airlines, where he is lobbying them to install coin-operated laundry machines. But, his family lives in Music City USA (Nashville, TN).

## Pamela Creedon

**Pamela Creedon** is the Executive Officer of the Central Valley Water Quality Control Board. She is a licensed Civil Engineer and a Board Certified Environmental Engineer with over 32 years of professional experience, including over 21 years of experience in both the public and private sector developing and implementing water quality regulatory programs. She holds a Bachelor of Science and Master of Science in Civil Engineering from California State University, Sacramento. She is a member of the American Society of Civil Engineers, the American Academy of Environmental Engineers and Tau Beta Pi. She serves on the American Society of Civil Engineers National Energy, Environment and Water Policy Committee and the CSU Sacramento Environmental and Water Resources Advisory Committee. She is a Vice-Chair of the Sacramento Chapter of the Environmental & Water Resources Institute (SCEWRI) of the American Society of Civil Engineers and is a member of the Board of Directors for the San Francisco Estuary Institute Aquatic Science Center.

## Richard Meyerhoff

**Richard Meyerhoff** is a Vice President in the water resource division at CDM Smith, where he has served clients since 2000. He has BS and MS degrees in biology from Baylor University and a Ph.D. in aquatic ecology from Oregon State University. Dr. Meyerhoff has more than 21 years of technical and regulatory experience in water quality-related issues, especially in western states. At the beginning of his career he worked as a regulator with the Arizona Department of Environmental Quality overseeing the state's water quality standards program, including initiating development of that state's bioassessment program. Since 1997, he has assisted clients with implementation of Clean Water Act-related requirements, including supporting the development of water quality standards in a number of states and tribes, preparing TMDL Implementation Plans and supporting their execution, and assisting with

implementation of discharge permits, in particular as related to stormwater management. He is currently serving as the Technical Project Manager for CV-SALTS, overseeing the completion of technical studies to support development of the Central Valley's Salt and Nutrient Management Plan.

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**Alternative Energy for Desalination  
Thursday, February 14, 2013  
4:15 p.m. – 5:30 p.m.**

## Jose Faria

**Mr. Faria** is a Supervising Engineer Water Resources with the California Department of Water Resources (CDWR). He holds a B.S. Degree in Civil Engineering from the California State University at Fresno. For over 29 years, Mr. Faria has accumulated a broad range of experience in the water resources engineering field. As Chief of the Special Investigations and Regional Manager Branch within DWR's South Central Region Office, Mr. Faria is responsible for providing technical and administrative direction for the programs within the three sections of the Branch: Special Studies and Technical Support, Surface and Groundwater Data, and Groundwater and Regional Planning.

## Rick Bond

**Rick Bond** is a process engineer in the Water Technologies Division of Black and Veatch. He is currently researching affordable treatment and disposal methods for RO brine generated from inland desalination. Mr. Bond has experience with plant start-up, testing, evaluating, and modeling process technologies including MF, UF, NF, and RO membranes, granular activated carbon, powdered activated carbon, ion exchange, ozone, electrodialysis, and microsand ballasted flocculation. Mr. Bond has authored over 45 publications in journals, conference proceedings, and book chapters on desalination, concentrate management, disinfection byproduct control, taste and odor control, and use of activated carbon.

## Michael Pollock

**Mr. Pollock** is a Senior Engineering Director at Concurrent Technologies Corporation where he is responsible for a staff of 40 Mechanical engineers and Project managers who support development of a wide variety of technical solutions for both military and commercial: ground, ship and air systems. He has a B.S. in Mechanical Engineering from the University of Pittsburgh and has over 20 years of experience in the ME field. He is a certified Professional Project Manager and has fulfilled the role as Technical lead and Project manager in support of Navy and DOD prime contractor programs.

## Roland Winston

In 2003, **Dr. Winston** joined the new University of California at Merced as a Professor and founding faculty member in the schools of Natural Science and Engineering. He is currently Distinguished Professor, and Director, California Advanced Solar Technologies Institute. Dr. Winston's research and teaching focuses on concentrating solar energy systems and applied nonimaging optics.

The concepts developed and the devices invented by Dr. Winston have formed the core of a new technology which carries the promise of making solar energy a truly viable energy source for society. Practical applications can be found in photovoltaics, natural lighting of buildings, water heating, space heating and cooling, desalinization, cooking and in the collection of solar UV radiation for the photocatalytic treatment of contaminated wastewater. Nonimaging optics proved to be an important tool in several other areas including astrophysics, elementary particle physics, infrared physics and vision research.

Dr. Winston has continued research on high energy physics, most recently at CERN (European Organization for Nuclear Research) in Geneva, where, in collaboration with Prof. Nicola Cabibbo and colleagues, the beta decays of the hyperon octet are being investigated.

From 1964 to 2003, Dr. Winston held various positions, including Chairman of the Department of Physics (1989-1995), at his alma mater, the University of Chicago. In 1965, in connection with designing Cerenkov radiation detectors for a high energy physics experiment, Winston discovered the ideal nonimaging concentrator now called the compound parabolic concentrator. He extended the principles of nonimaging concentration to the design of solar collectors in 1973

## Jeff Mosher

**Jeff Mosher** joined the National Water Research Institute (NWRI), a public-private partnership in Fountain Valley, California, in 2005. He is responsible for advancing NWRI's mission of creating new sources of water through research and technology and to protecting the freshwater and marine environments.

As Executive Director, Mr. Mosher manages NWRI's research program, as well as organizes events, identifies research funding opportunities and research partners, and communicates the results of research to the water community and public.

Mr. Mosher has worked in the water industry for over 18 years. Prior to joining NWRI, he spent 3 years with the WateReuse Foundation, an educational, nonprofit organization that serves to increase public awareness and understanding of recycled water and to facilitate the development of technology to improve water recycling and desalination. As Director of Research Programs, he was responsible for directing the

Foundation's multi-million dollar research program, overseeing staff and financial resources, identifying research partners, planning and holding workshops and conferences, and supporting the needs of the Board of Directors, advisory committees, and volunteers. During this time, he was also Director of Technical Services for the WaterReuse Association, a non-profit trade organization representing water reuse agencies.

Mr. Mosher worked for the Association of Metropolitan Water Agencies from 1999 to 2002 as Director of Technical Services, where he spearheaded technical support for the Association, which represents large municipally-owned drinking water systems. He was responsible for tracking regulatory and legislative issues, as well as for managing association programs and initiatives. In this capacity, he helped establish and coordinate a national advisory committee on water utility security prior to the September 11, 2001, terrorist attacks on the United States.

Over the years, Mr. Mosher has provided scientific and technical support on a variety of water-related issues, such as human risk assessments; chemical and microbial occurrence in water; the fate and transport of contaminants in the environment; water treatment technology performance evaluations; and economic cost and benefit analyses. He worked for 10 years as an environmental consultant in the areas of water quality, regulation, and policy. In addition, he worked 3 years in technical services in the manufacturing industry.

Mr. Mosher received a B.S. in Chemistry from the College of William and Mary and an M.S. in Environmental Engineering from George Washington University. He currently lives in Orange County, California.

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**Opening Keynote Presentation**  
**Friday, February 15, 2013**  
**8:30 a.m. – 9:00 a.m.**

# Richard Nagel

**Rich Nagel** was named General Manager by the West Basin Municipal Water District Board of Directors in May 2006 and was previously West Basin's Manager of Water Quality since 2000. He is responsible for West Basin's Water Reliability 2020 Program that includes providing a safe high-quality supply of water, reducing the service areas use of imported water, doubling the recycled water production at the nationally recognized Edward C. Little Water Recycling and Research Facility, doubling conservation initiatives, increasing public education and development of ocean-water desalination as an alternative water supply.

Nagel has over 25 years of experience in water supply and wastewater, water quality regulatory programs, research and development programs with numerous public and regulatory agencies on groundwater quality issues, remedial investigation activities and various water treatment studies overseeing numerous reports on groundwater studies and the effects of various contaminants. He was named 2011 Person of the Year by the WateReuse Association for his significant contributions to the advancement of water reuse and dedication to the water reuse community.

A registered engineer, Nagel graduated from San Diego State University with a Bachelor of Science in Civil Engineering. He is on the Chair of the South Bay Steering Committee for the Greater Los Angeles Integrated Regional Water Management Plan, Board of Directors of the WateReuse Foundation and California WateReuse Association, Board Member of the Urban Water Institute and the Multi-State Salinity Coalition, alternate Board member of the National Water Research Institute and New Water Supply Coalition, served on DWR's Recycled Water Task Force, and the Los Angeles County Department of Public Works Recycled Water Task Force.

**2013 MSSC Annual Salinity Summit**

***“Embracing Innovations & Overcoming Barriers”***

***February 14-15, 2013***



**Salinity Management in Oil, Gas and Mining  
Industries, Industrial Applications**

**Friday, February 15, 2013**

**9:00 a.m. – 10:15 a.m.**

## Val Frenkel

**Dr. Val S. Frenkel** is an eminent figure in the water industry with his expertise in water and wastewater treatment, water reuse, and membrane technologies, including desalination. Equally instrumental was Dr. Frenkel's role in the development of low pressure membrane technologies and applications which are used and taught at the university level.

Dr. Frenkel's works go far beyond his job scope as they are published extensively both in the US and abroad, authoring several patents. He has published more than 100 articles in the areas of water, wastewater treatment, desalination and salinity management. For his works, Dr. Frenkel has received numerous accolades from the likes of the International Desalination Association and American Academy of Environmental Engineer. At the same time, Dr. Frenkel is also a Diplomat, Water Resources Engineer (D.WRE) of the American Academy of Water Resources Engineers (AAWRE), which is part of the Academy of the Civil Engineering Certification, Inc. (CEC).

## Peter Sharry

**Peter Sharry** is employed by GHD Pty Ltd in the position of Principal Scientist in the Cairns Water Group in Australia. He holds a Bachelor of Applied Science degree in Chemistry and has 25 years of analytical, operating and process design experience. He has worked in the design, operation, and troubleshooting of membrane and advanced water treatment processes and project management for the past fourteen years. His key areas of interest are in membrane desalination technology and mine water management. He is currently undertaking study towards a Master of Integrated Water Management qualification.

## Paul Choules

**Paul Choules** is a Senior Vice President, Commercial for Water Standard. During his 30 years in the desalination industry, Mr. Choules has worked in the areas of business development, permitting, start-up, commissioning, project management, and operating of reverse osmosis and thermal desalination plants around the world with both Industrial, Oil & Gas, and Municipal clients. Prior to joining WATER STANDARD, Mr Choules served as Vice President with Veolia Water Solutions and Technologies where he led the development and execution of multiple projects in the Industrial and Municipal markets. Prior to Veolia acquiring Weir Techna, Mr. Choules was Techna's regional Vice President for the Americas where, under his direction, these offices contracted and constructed multiple water treatment projects for offshore Oil and Gas facilities. Mr. Choules's experience also includes 19 years at MECO where he was responsible for providing support to over 250 desalination installations and where he developed and executed some of the first successful membrane desalination plants in

the Middle East region. There he also led international business development, developing industrial, predominately Oil & Gas, projects and was responsible for developing MECO's marine business which included expanding their capabilities into the offshore Oil & Gas market and the US Navy. He was identified as one of 36 global desalination expert "Desalters" in the history of the industry by Global Water Intelligence in August 2011. Mr. Choules is President of the Texas Desalination Association, Secretary of the Caribbean Desalination Association (CaribDA) and a South Central Membrane Association (SCMA) board member.

## **Patrick V. Brady**

**Patrick Brady** a Senior Scientist at Sandia National Laboratories. He was Editor of the Desalination and Water Purification Roadmap implementation as well as the long range R&D Desalination efforts at Sandia. He leads research efforts in desalination, silica removal, mineral surface chemistry, arsenic treatment, and enhanced oil recovery. He is also an Adjunct Professor of Environmental Engineering at New Mexico Institute of Mining and Technology, Patrick holds M.S. and Ph.D. degrees from Northwestern University,

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**National and Regional Research  
Friday, February 15, 2013  
10:30 a.m. – 12:00 p.m.**

## **Claudio H. Ternieden**

**Claudio Ternieden** is a Director of Water Resources & Sustainability at Concurrent Technologies Corporation (CTC) ([www.ctc.com](http://www.ctc.com)) - an independent, nonprofit, applied scientific research and development professional services - Claudio leads CTC's water resources strategic planning and focuses on water and wastewater technology development, transfer and transition. Claudio works with federal, state and local agencies on infrastructure and sustainability planning, climate change adaptation, and water resources planning. Before coming to CTC, Claudio was Assistant Director of Research with the Water Environment Research Foundation (WERF) where he helped lead water research efforts for water and wastewater utilities. Claudio has worked with the aviation industry on water resources and climate change planning; on the development of federal regulations while at the US Environmental Protection Agency in Washington, DC and on water quality standards development and implementation at the state and local levels. Currently, Claudio seats on the U.S. Federal Aviation Administration Research, Engineering, and Development Advisory Committee as a member of the Subcommittee on Environment and Energy. He has participated in the U.S. Department of Homeland Security/U.S. Environmental Protection Agency Water Sector Security Coordinating Council (WSSCC); the National Academy of Sciences: Transportation Research Board Committee on Environmental Impacts of Aviation (A1J09sent); the Next Generation Air Transportation System Institute: The Joint Planning and Development Office (JPDO). Claudio has a law degree from Pace University School of Law, White Plains, NY; a master degree in public policy from George Mason University, School of Public Policy, Arlington, VA, and an undergraduate degree in History and Secondary Education from Concordia College, Bronxville, NY.

## **Edmund G. "Ed" Archuleta**

**Edmund G. "Ed" Archuleta**, P.E., has been manager of the El Paso Water Utilities Public Service Board since January 1989. He is responsible for all aspects of water, wastewater, reclaimed water service and storm water to the greater El Paso metropolitan area. He reports to and implements strategic policies set by the seven-member public service board.

A registered professional engineer in Texas, New Mexico and Iowa, Mr. Archuleta earned B.S. and M.S. degrees in civil engineering from New Mexico State University and a master of management degree from the University of New Mexico. He is an American Academy of Environmental Engineers Diplomat. In June 2006, he was appointed by President George W. Bush to the National Infrastructure Advisory Council. In 2008, he was appointed by the National Academy of Engineering and National

Academy of Sciences to develop a publication on water reuse as an approach on meeting future water supply needs. Most recently, he was named the WateReuse Association's Person of the Year for 2010.

In 2010, Mr. Archuleta was appointed by President Barack Obama to represent the United States as chairman on the three-member Pecos River Compact Commission. He serves with two other commissioners, each representing the states of Texas and New Mexico.

Mr. Archuleta is currently involved with several technical and professional organizations, including the American Water Works Association, Water Environment Federation, WateReuse Foundation, National and Texas Societies of Professional Engineers, Texas Water Conservation Association, New Mexico/Texas Water Commission and Far West Texas Planning Group. He is a past chairman of the Water Research Foundation and current board member of the Association of Metropolitan Water Agencies, WateReuse Association and El Paso Regional Economic Development Corporation. He serves as chairman of the Multi-State Salinity Coalition, an organization of 17 member cities in the West. He is an advisory board member to the USO El Paso chapter.

Mr. Archuleta is currently serving or has served on several civic organizations, including the United Way, Paso del Norte Health Foundation, Rotary Club, Greater El Paso Chamber of Commerce, Paso del Norte Group, El Paso Symphony, Community en Acción and New Mexico State University Academy of Civil Engineers. He is also on the engineering advisory boards of New Mexico State University and The University of Texas at El Paso.

## **Thomas A. Davis**

**Tom Davis** is Director of the Center for Inland Desalination Systems at the University of Texas at El Paso (UTEP). He is also a tenured professor in the Department of Civil Engineering. Tom earned his BS and PhD in Chemical Engineering at the University of South Carolina. Most of his career has been devoted to the understanding the capabilities of ion-exchange membranes and their applications to electro dialysis and fuel cells. His employment includes Southern Research Institute, Exxon, Graver Water, the University of South Carolina, and ZDD, Inc., a small company that is commercializing technology for reduction of the amount of water lost in the disposal of concentrate from desalination of saline water. His current research activities include removal of toxic chemicals, including arsenic, selenium and heavy metals, from water and processes for improved utilization of water in industrial processes. He has fifteen issued US Patents with three pending.

Tom's favorite hobby is singing. He currently participates in church choir, barbershop chorus and quartet, and in musical theater performing works by Gilbert and Sullivan.

## **Sally C. Gutierrez**

**Sally C. Gutierrez** is the Director of the National Risk Management Research Laboratory (NRMRL) in Cincinnati, Ohio. NRMRL is one of three Federal research laboratories within the U.S. Environmental Protection Agency's Office of Research and Development. The Laboratory is responsible for conducting engineering and environmental technology research to support the Agency in development of policy, regulations and guidance to further environmental protection in the U.S. The research staff consists of 400 environmental and chemical engineers, chemists, microbiologists, economists, hydrologists and other scientists and support staff. Key areas of research include: treatment and control of contaminants in drinking water, restoration of ecosystems, control of air pollutants, remediation of contaminated sites, environmental sustainability and environmental technology testing and development. Mrs. Gutierrez was born and raised in Houston, Texas. She received a Master of Science degree from the University of Texas, School of Public Health in Houston. Her area of expertise is water resource management. She was appointed NRMRL's Director in 2005. Prior to this appointment she was the Director of the Water Supply and Water Resources Division with the Laboratory. During her tenure as Director of the Water Supply and Water Resources Division, she was responsible for leading a national technology demonstration program for control of arsenic in drinking water. Prior to coming to U.S. EPA, she was responsible for administering several water programs for the State of Texas environmental agency in the areas of drinking water, water monitoring, wastewater treatment permitting, and utility rates. She is a member of the American Water Works Association and the American Society of Civil Engineers and is past President of the Texas Environmental Health Association. She is a member of the Board of Directors for AIDIS U.S.A.

## **Ronald W. Sullivan**

An Eastern Municipal Water District Board Member since January 2003, **Ron Sullivan** brings a wide variety of service with city and county organizations, including past chair of the Riverside County Planning Commission, City of Hemet Planning Commission, and Riverside County Aviation Commission. He served as a representative to former State Senator Marian Bergeson.

A licensed general contractor, he is experienced in real estate planning, design, development, and construction and is an owner in Sullivan & Sullivan R.E. Group Inc. Mr. Sullivan is a past President of the Eastern Municipal Water District (EMWD) board, and currently serves on the Executive Committee, the Operations and Engineering Committee, and the Planning Committee. He is also the past chair of the five-member Santa Ana Watershed Project Authority, and continues as a commissioner from EMWD. He represents EMWD on the Association of California Water Agencies Federal Affairs committee, and the Western Riverside Water and Wastewater Financing Authority. His EMWD board term expires in January 2017.

During the fall of 2012, Mr. Sullivan served on the U.S. EPA working group addressing *the Importance of Water to the U.S. Economy*, and was appointed to represent California on the National Water Resources Association Board of Directors.

Mr. Sullivan has a wealth of experience vetting policy related groundwater, surface, imported and recycled water supplies, as well as salinity management including desalination and brine minimization, environmental stewardship, chemical security, septic to sewer conversion, alternative energy including fuel cells and biodiesel, tribal relations, budgets and water/wastewater rate setting.

Mr. Sullivan has extensive experience on several federal legislative and policy areas including the Clean Water Act, Title XVI and WaterSmart, Water Resources Development Act, Endangered Species Act, appropriations, and the State Revolving Fund. He has worked closely with Congress and relevant committees, the Bureau of Reclamation, U.S. Environmental Protection Agency, U.S. Army Corps of Engineers, Office of Management and Budget, U.S. Fish and Wildlife Service, U.S. Department of Agriculture, and the Council on Environmental Quality.

Mr. Sullivan is also a vocal advocate for issues that are unique to the arid west.