

## **MONDAY MORNING**

### **DRINKING WATER REGULATIONS OVERVIEW**

**8:00-12:00 in the Franciscan Room**, 3.5 Credits - Water

Chuck Thomas, New Mexico Environmental Department/Drinking Water Bureau

Violette Valerio-Hirschfeld, New Mexico Environmental Department/ Drinking Water Bureau

This session provides a brief overview of all Safe Drinking Water Act Rules. The instructors will cover each Rule currently in effect and will focus on what water systems need to do to achieve and maintain compliance. Find out what each Rule requires and which Rules apply to your water system.

### **ODOR ASSESSMENT AND CONTROL**

**8:00-12:00 in Alvarado F**, 3.5 Credits - Wastewater

Jay Witherspoon, CH2M Hill

This presentation will provide an overview of odor assessment, measurement, prevention, and control to facility staff facing odor control problems. State of the art approaches, strategies and equipment solutions will be presented and discussed in detail to facilitate the participant's ability to make screening-level decisions for their odor issue or concern. An odor assessment and control "tool kit" will be utilized to allow the class participants to present an odor problem in a workshop setting, solve the problem and gain experience in handling real life situations.

### **OPERATOR CERTIFICATION "EXAM CRAM"**

**8:00-5:00 in Alvarado G&H**, 6.5 Credits – Water

Mike Alvidrez, New Mexico Rural Water Association

Robert Apodaca, New Mexico Rural Water Association

Dan McGregor, Bernalillo County

This session is geared toward water operators who are preparing to take their certification exam. The morning session will cover the basics of groundwater and wells, all aspects of distribution and cross connection control. The afternoon session will cover surface water treatment, disinfection and safety. This course is meant to be a refresher for operators who already have been studying for the exam. The presenters will not discuss actual exam questions. Come prepared to review and clarify water operation information as an added opportunity to study for the certification exam.

### **INTRODUCTION TO MEMBRANE TECHNOLOGY**

**8:00-10:00 in the Potter's Room**, 2 Credits – Water

Eddie C. Livingston, Livingston Associates, P.C.

This introductory course will focus on the use of membrane filtration in water treatment. Different categories of membranes will be discussed, including microfiltration, ultrafiltration, nanofiltration and hyperfiltration (reverse osmosis). Various uses for each of these membrane types in water treatment will be covered, along with some project examples. Specific water treatment objectives will also be discussed, including arsenic removal, surface water treatment,

groundwater under the influence (GUI), brackish water treatment, total-dissolved-solids (TDS) and mineral reduction (water softening). Included will be some discussion on the planning, design, construction, operation and economics of using membrane treatment.

### **WATER AND RURAL LAND USE DECISIONS FOR NEW MEXICO COMMUNITIES**

**8:00-10:00 in the Weaver's Room**, 1 Credit – Water/Wastewater

Anita Miller, Attorney at Law, LLC.

This course will be a discussion on how land use decisions should be based on water availability in rural New Mexico, with particular attention to new domestic well regulations, regional water planning, county subdivision regulations, and other land use legislation which may pass in the 2007 session.

### **WATER RIGHTS UPDATE FROM THE OFFICE OF THE STATE ENGINEER**

**8:00-10:00 in the Turquoise Room**, 1 Credit - Water

John T. Romero, Water Resource Allocation Program, Office of the State Engineer

The NM Office of the State Engineer is responsible for the supervision, measurement, appropriation and distribution of the state's water. This presentation will outline the make-up and history of the agency. It will cover basic water right terms and definitions along with addressing certain water right issues such as return flow credits, transfers and domestic wells. The agency's Active Water Resource Administration (AWRM) initiatives and priorities going into the 2007 Legislative session will be discussed. The Governor has designated 2007 the "Year of Water." The presentation will conclude with a question-and-answer session.

### **REMOVAL OF RADIONUCLIDES FROM WATER**

**10:30-12:00 in the Franciscan Room**, 1.5 Credits - Water

Ryan Peterson, Water Remediation Technology

Water providers are required to be in compliance with the EPA Radionuclide Rule, which limits the radium and uranium concentrations in drinking water. A brief review of the radionuclide rule and an overview of the WRT Z-88<sup>TM</sup> radium removal, and Z-92<sup>TM</sup> uranium removal processes will be presented, along with a summary of pilot study results from two New Mexico pilot sites. This is an adsorptive media, zero liquid discharge process. WRT provides for the safe exchange and proper disposal/recovery of the used media in licensed and permitted facilities on a long-term basis.

### **IMPACTS OF DOMESTIC WELLS ON RURAL WATER ASSOCIATIONS**

**10:30-12:00 in the Weaver's Room**, 1.5 Credits - Water

Jeffrey H. Albright, Lewis and Roca, Jontz, Dawe, LLP.

In August of 2006, new rules governing domestic wells became effective. Mr. Albright will discuss the existing statute, the administrative changes made to the New Mexico Administrative Code through a rule-making process by the OSE, and the potential impact on rural water associations, water co-ops, and water and sanitation districts. Mr. Albright will also provide an overview of a number of issues that have been raised regarding the changes

in the rules, and a brief synopsis of ongoing litigation that challenges certain provisions of the code.

### **USDA ENGINEERING AND ENVIRONMENTAL REQUIREMENTS**

**10:30-12:00 in the Turquoise Room**, 1.5 Credits - Water/Wastewater  
Sandy Edens, USDA Rural Development

This course is an overview of the engineering and environmental report requirements for funding by USDA/Rural Development. Engineering discussions will touch on selection of an engineer, Preliminary Engineering Report (PER) issues, challenges with current thinking about PER's, and design and funding issues. Environmental discussion will touch on the need for Cultural Resource Surveys, intergovernmental discussions to include tribal consultations, SHPO findings, and other NEPA and National Historic Preservation Act Section 106 requirements.

## **MONDAY AFTERNOON**

### **LONG TERM 2 ENHANCED WATER TREATMENT RULE**

**1:30-3:00 in the Franciscan Room**, 1.5 Credits - Water  
Angela Cross, New Mexico Environmental Department

The federal Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR) was published in December, 2005 and became effective on January 4, 2006. This rule will impose sampling requirements on most surface water treatment systems and could ultimately require modifications in treatment. This new rule and its impacts on New Mexico's surface water systems will be discussed, along with a review of LT1ESWTR and IESWTR.

### **WASTEWATER TO WATER: A STUDY IN REUSE**

**1:30-3:00 in Alvarado F**, 1.5 Credits - Wastewater  
Eddie C. Livingston, Livingston Associates, P.C.

This presenter will discuss the concept of using highly treated wastewater for augmenting drinking water supplies. The advantages of using re-purified water will be covered, including water rights, opportunities for reuse, and the economic value of wastewater as a water resource. There will be discussion on the USEPA guidelines for water reuse along with water quality concerns for reusing wastewater. Finally, the presenter will talk about the PURE Water Project for the Village of Cloudcroft and their plan to create 100,000 gallons per day of new water from wastewater.

### **ADVANTAGES OF MESH NETWORKS IN SCADA SYSTEMS**

**1:30-3:00 in the Potter's Room**, 1.5 Credits – Water  
Karl Lambert, Campbell Scientific, Inc.

Supervisory Control and Data Acquisition (SCADA) facilitates automatic monitoring and control of both small rural systems and large municipal water systems. Mr. Lambert will review the advantages of using SCADA, including better control of tanks, alarms for worn or broken parts,

energy savings, and reduction of off-hour surveillance. In addition, he will discuss the advantages of using RTUs and data loggers in a mesh fashion to route information back and forth, reducing the system's reliance on the base station computer.

### **RESPONDING TO PUBLIC RECORDS REQUESTS**

**1:30-3:00 in the Weaver's Room**, 1.5 Credits – Water/Wastewater  
Jeffrey H. Albright, Lewis and Roca, Jontz, Dawe, LLP.

New Mexico Statutes and New Mexico case law impose strict requirements under the Public Records Act and the Open Meetings Act for accountability by boards of Mutual Domestic Water Consumers Associations and Water and Sanitation Districts. Mr. Albright will explain the requirements for responding to public records requests, the need for "closure" when responding to the requests, and compliance requirements in both litigation and non-litigious situations. The impact of compliance, and non-compliance, will be discussed using specific examples from New Mexico cases.

### **HOW TO HIRE AN ENGINEER**

**1:30-3:00 in the Turquoise Room**, 1.5 Credits – Water/Wastewater  
Jim Chiasson, New Mexico Environment Department/Construction Programs Bureau

This session provides tips on hiring an engineer and reviews all aspects of the process, from the Request for Proposal to negotiating the contract. Special focus will be on the standardized engineering contract used for projects funded through the state legislature and the New Mexico Environment Department.

### **GROUNDWATER & SURFACE WATER OPTIMIZATION**

**3:30-5:00 in the Franciscan Room**, 1.5 Credits – Water  
Bill Davis, US EPA - Region 6

The Groundwater and Surface Water Optimization workshop will present an overview of concepts that are used when trying to optimize both types of systems and will present some of the developmental work that has been done so far. Groundwater case studies will be presented in a portion of the workshop in a format that will allow audience feedback.

### **ASSET MANAGEMENT FOR WASTEWATER SYSTEMS**

**3:30-5:00 in Alvarado F**, 1.5 Credits - Wastewater  
Bill Kramer, National Rural Water Association

This course will provide an introduction to NRWA's tool for Capacity, Management, Operations and Maintenance Asset Management. The template was developed to be consistent with EPA guidance. The plan utilizes Microsoft Word so that the system, along with assistance from a state rural water wastewater circuit rider, can insert appropriate site-specific information. The asset management component employs a Microsoft Excel spreadsheet to facilitate asset tracking, evaluation, and life expectancy for use in determining a reasonable annual set aside based upon present value replacement cost.

**REDUCING LEAD IN WATER USING LEAD FREE BRASS****3:30-5:00 in the Potter's Room, 1.5 Credits - Water**

Steve Tefft, A.Y. McDonald Mfg. Co.

Traditionally, waterworks brass products have been manufactured from leaded brass with 4-6% lead. A number of Bismuth red brass alloy options (C89836, C89520 & C83300) have been developed as replacement options. These alloys contain a maximum of either .10% or .25% lead. ANSI/NSF 61 is a performance-based standard established to measure contaminants introduced into drinking water from products. The contaminants include regulated metals such as lead, copper, organics and pesticides. Participants will learn about these current standards, and how systems can upgrade from traditional waterworks brass.

**PROPERTY AND CASUALTY INSURANCE****3:30-5:00 in the Weaver's Room, .5 Credits – Water/Wastewater**

Stephanie Dew, Glatfelter Insurance Group

Uncertain what insurance coverage your water entity should have? Join us as we discuss basic insurance coverages, and identify unique coverage specific to water entities. Ms. Dew will provide the information necessary for you to determine if your water system is properly covered. Specifically, she will discuss the principles of General Liability, Professional Liability, Directors & Officers Liability, Employment Practices Liability, Employee Benefits Liability, Automobile Liability, Commercial Property, Boiler & Machinery and Inland Marine coverages.

**PROJECT ENGINEERING AND CONSTRUCTION REQUIREMENTS****3:30-5:00 in the Turquoise Room, 1.5 Credits - Water/Wastewater**

Chuck Thomas, New Mexico Environmental Department/Drinking Water Bureau

Mr. Thomas will provide an overview of the requirements for engineering and/or construction services for public water systems in New Mexico. Participants will learn what information must be submitted, what key elements are required, what the water system's liability is, and get tips on what makes a good project engineer.

**TUESDAY MORNING****GROUNDWATER RULE****8:00-10:00 in the Franciscan Room, 2 Credits - Water**

Kim Ngo Kidd, Environmental Protection Agency

The Ground Water Rule (GWR) was signed on October 11, 2006 and published in the Federal Register on November 8, 2006. The GWR provides increased protection against microbial pathogens in PWS that use ground water sources. It establishes a risk-based approach to target ground water systems that are vulnerable to fecal contamination. Under this rule, groundwater systems identified as being at risk of fecal contamination must take corrective action to reduce potential illness from exposure to microbial pathogens. The rule will apply to all systems that use ground water as a source of drinking water.

**NITROGEN CONTROL IN WASTEWATER TREATMENT PLANTS****8:00-12:00 in Alvarado F**, 3.5 Credits - Wastewater

Ron Trygar, USA Bluebook

Many treatment plants today find themselves with a new operating permit that includes monitoring and removing nitrogen. If the treatment plant was built several decades ago, it may not be designed to effectively remove this nutrient. This session focuses on the conversion of nitrogen to environmentally acceptable forms and the conditions needed to achieve this. Topics include forms of nitrogen in wastewater, nitrification and denitrification, problems nitrogen can cause and methods of controlling nitrogen.

**BASIC WATER MATHEMATICS****8:00-12:00 in Alvarado G&H**, 3.5 Credits - Water

Michael Alvidrez, New Mexico Rural Water Association

This class is designed to help students overcome their fears of doing basic math, refresh memories and provide valuable information on solving practical problems as well as those on the certification exam. The curriculum is designed to be useful to both beginning and more advanced students. Topics to be covered include conversions, well data, basic geometry, flows, pump calculations and disinfection dosages.

**OPTIMAL ARSENIC TREATMENT SELECTION TOOL****8:00-12:00 in the Potter's Room**, 3.5 Credits - Water

Christopher Campbell, WERC/New Mexico State University

Luz Elena Mimbel, IEE/New Mexico State University

Brian Swain, WERC/New Mexico State University

This workshop will focus on the activities of the Arsenic Water Technology Partnership to assist rural water systems affected by the new arsenic standard of 10 ppb. Pilot test results for a number of commercial technologies will be used to help affected systems decide on the most appropriate technology for their system. To help with this, the Partnership has developed the CoAsT tool, a web-based decision tool that can further assist small systems. Current flow data and arsenic sampling results from your system will help evaluate what the best available technology for your system might be.

**SANITARY PROJECTS ACT WORKSHOP****8:00-12:00 in the Weaver's Room**, 3.5 Credits – Water/Wastewater

Richard Rose, New Mexico Environment Department/Construction Programs Bureau

Rick Bela, ConZeho, Inc.

Charles N. Lakins, Domenici Law Firm, PC

This workshop is designed to give participants a comprehensive understanding of the Sanitary Projects Act (SPA). The first part of the workshop will address the importance of the act and recent amendments. This is an opportunity to learn what the regulations really mean and how they affect your Association. The second part of the workshop will focus on the roles and responsibilities of board members, officers, and managers of water associations under the

Sanitary Projects Act and its latest amendments and department regulations. Presenters will discuss a variety of issues water systems face under the SPA and other state drinking water regulations.

### **FINANCIAL MANAGEMENT**

**8:00-12:00 in the Turquoise Room**, 3.5 Credits – Water/Wastewater  
Olga Morales-Sanchez, Rural Community Assistance Corporation

Having adequate financial resources is a must to maintain a utility system. This workshop is meant for decision makers, operators, clerks/recorders, engineering firms and anyone responsible for managing the financial resources of a utility system. It is designed to take you step-by-step through the development of a budget, the rate setting processes, and to help you plan for the future. The workshop is participant-centered and instructor-led. Bring copies of your financial information to maximize your learning opportunities.

### **LEAD AND COPPER RULE**

**10:30-12:00 in the Chapel (in the Hotel Courtyard)**, 1.5 Credits - Water  
Kim Ngo Kidd, Environmental Protection Agency

The Lead and Copper Rule (LCR) was established in 1991 to control lead and copper, which enter drinking water primarily through plumbing materials. The rule requires systems to monitor drinking water at customer taps. If lead concentrations exceed the lead/copper action levels, the water system must undertake actions to control corrosion and inform the public. In 2002, EPA published revisions to the rule, which streamlined and reduced the monitoring/reporting burden. In 2004, EPA published minor corrections to the rule, and in 2006, EPA proposed changes to enhance implementation in the areas of monitoring, treatment, customer awareness, and public education requirements.

### **ASSET MANAGEMENT: THREE NEW MEXICO CASE STUDIES**

**10:30-12:00 in the Fireplace Room**, 1.5 Credits – Water/Wastewater  
Dawn Nall, NM Environmental Finance Center

Asset management is intended to help water systems determine how to achieve the level of service they want to deliver to their customers at the lowest overall, life-cycle cost. Any size system can benefit from the principals of asset management and any sized system can do asset management. This presentation will discuss the type of asset management approach used in three small communities in New Mexico. The presentation will show the ways in which the communities benefited from the effort and discuss challenges in completing the plan.

## **TUESDAY AFTERNOON**

### **EXHIBITOR DEMONSTRATION CLASSES**

**1:30-5:00 in the Exhibition Hall**, 2.5 Credits Maximum – Water/Wastewater

Please see the Exhibitor Demonstration Classes Instruction Sheet included in your conference materials for further information. Each 30-minute session is valued at .5 credits.

## **WEDNESDAY MORNING**

### **STAGE 2 DISINFECTION BYPRODUCTS RULE**

**8:00-10:00 in the Franciscan Room, 2 Credits - Water**

Nancy Gillard, New Mexico Environment Department/Drinking Water Bureau

The federal Stage 2 Disinfection Byproducts Rule (Stage 2) was published in December, 2005 and became effective on January 3, 2006. This rule imposes new short-term sampling requirements on most drinking water systems that disinfect their water. This new rule and its impacts on New Mexico's drinking water systems will be discussed, along with a review of the Stage 1 Disinfection Byproducts Rule.

### **BASIC WASTEWATER MATHEMATICS**

**8:00-10:00 in Alvarado F, 2 Credits - Wastewater**

Arnie Castaneda, City of Mesilla

In this class, basic math as it pertains to small wastewater treatment and collections systems will be reviewed. Topics will include common formulas, conversions and math problems derived from real life situations a wastewater operator faces daily. Chlorine dosing formulas will be covered in depth. This course is essential for Levels 1 and 2 certification exam review. Handouts and reference materials will be provided.

### **NEW MEXICO EXCAVATION LAW CERTIFICATION**

**8:00-12:00 in Alvarado G&H, 3.5 Credits – Water/Wastewater**

Gary Sloman, New Mexico One-Call, Inc.

This class provides an in-depth look at the state statutes, rules and regulations regarding excavation, and how it imposes and shifts burdens of responsibility from one party to another. Emphasis is placed on when you may dig and how to handle "clears" correctly. The NM Excavation Law contains provisions for fines of \$5,000 to \$25,000 for facility owners of underground plants, as well as excavators who violate the law. The presentation will also cover new rules adopted by the PRC regarding administration of the excavation law. The presentation includes handouts of the excavation law and appropriate NMPRC rules condensed into student manual and a pocket size excavator's manual. Participants will receive a certification from NMOC upon completion of this session.

### **INTRODUCTION TO ADVANCED WATER TREATMENT**

**8:00-10:00 in the Potter's Room, 2 Credits - Water**

Don Castillo, New Mexico Rural Water Association

Sheri Stockhaus, McPhee Environmental

This comprehensive training session will cover the important aspects of drinking water treatment from natural sources and high purity water treatment. Topics will include conventional water treatment, multimedia filtration, carbon filtration, cartridge filtration, softening, ion exchange and reverse osmosis. The class will conclude with an overview of which contaminants are removed by which type of filtration process.

**USDA COMMUNITY PROGRAMS UPDATE****8:00-10:00 in the Weaver's Room, 2 Credits – Water/Wastewater**

Martha Torrez, USDA Rural Development

Personnel from Rural Development Community Programs (CP) section will provide an overview of their funding and program changes for Fiscal Year 2007. Topics discussed will include Agency reorganization under the Consistency Plan, FY 2007 water and wastewater funding allocations, new loan/grant determination method, interest rates, user rate requirements, audit requirements, pre-authorized debit payments and future funding projections. This course is designed to give water and wastewater system boards and managers an insight into funding future infrastructure improvement projects through Rural Development and other sources as grant availability continues to decrease across the industry.

**ASSET MANAGEMENT FOR WATER SYSTEMS****8:00-10:00 in the Turquoise Room, 2 Credits - Water**

Matt Tasch, Utility Service Company

This course will teach the average water system owner or operator what they can do to protect their largest assets. The session will cover the different types of water related assets. The attendees will then create a checklist of how, when, and what do to when inspecting their assets. The discussion will also included how to select a qualified contractor, interacting with state and other regulatory agencies, and asset maintenance programs.

**WATER SYSTEM SECURITY****10:30–12:00 in the Franciscan Room, 1.5 Credits – Water**

Jerry Lewis, New Mexico Environment Department/Drinking Water Bureau

This presentation will cover different aspects of water system and NMED/DWB emergency response in case of a water system intrusion or potential contamination incident. It will include a description of three potential contamination incidents that occurred in Albuquerque in 2004, with lessons learned. Participants will learn about the Emergency Communication Protocol for public water systems, NMED/DWB's Emergency Response Plan and the "Site Characterization" process to be used during a potential contamination incident.

**ADVANCED MATH FOR ACTIVATED SLUDGE PROCESS CONTROL****10:30–12:00 in Alvarado F, 1.5 Credits - Wastewater**

Ege Richardson, Aegean Consulting

In this class, calculation of the basic activated sludge process control variables, including sludge age, food-to-microorganism ratio, sludge volume index, hydraulic and mass loadings, detention times, and overflow rates etc will be reviewed. The effects of these process variables on the system performance will also be discussed. Examples of wastewater treatment plant problems will be presented and the class will calculate the process and design variables to troubleshoot the problem. Basic knowledge of activated sludge process control and basic math skills are required. Students are asked to bring their own calculators.

**HYDRO-OPTIC DISINFECTION****10:30-12:00 in the Potter's Room, 1.5 Credits – Water**

Norman Sendler, Atlantium Technologies, Ltd

Current technology has blended the disinfection powers of UV with the principles of fiber optics to provide the next generation of water disinfection: a system where the UV energy source is out of the water stream. As opposed to conventional UV systems, the measured dosage of the HOD system is the actual dose -- no more guessing whether a lamp is working. The HOD technology guarantees a minimum of 5 log reductions and has even achieved a 9 log reduction. The HOD system represents a new Best Available Technology (BAT) for addressing the new Groundwater Rule of 4 log reductions for groundwater disinfection.

**PROTECTING YOUR SYSTEM FROM ENCROACHMENT USING 1926(b)****10:30-12:00 in the Weaver's Room, .5 Credits – Water**

Michael D. Davis, Doyle, Harris, Davis and Haughey

To encourage development of facilities to provide water and other services to rural areas, the federal government set up a loan program. Part of this program, 7 U.S.C Section 1926(b) was enacted to protect associations borrowing funds under this program from encroachment or competition, i.e., to preclude competitors from providing water service to existing or potential customers of the indebted association. The class will cover the basic issues relating to Section 1926(b), including the purpose of the statute and the protection it provides, why an association should obtain that protection, how to qualify for the protection, and remedies available for violation of the statute and settlement issues.

**MEETING WATER CONSERVATION GOALS****10:30-12:00 in the Turquoise Room, .5 Credits – Water/Wastewater**

Robert Tafoya, Souder Miller and Associates

Roy Maestas, Souder Miller and Associates

This course will discuss the importance of developing water conservation plans and emergency response plans in small rural communities. The presenters will utilize case studies to highlight supply and demand issues for small communities and potential problems that can occur if you are not prepared. They will also discuss the integration of the two plans to allow rapid community response to short or long term threats to the community's water supply.

**WEDNESDAY AFTERNOON****TOTAL COLIFORM RULE AND SAMPLING****1:30-3:00 in the Franciscan Room, 1.5 Credits – Water**

Nora Romero, New Mexico Environment Department/Drinking Water Bureau

The objective of this class is to provide water operators with information on how to take compliance bacteriological (Bac-T) water samples in a public water distribution system. Participants will learn all aspects of the rule, including the purpose of sampling the distribution

system, how to determine the appropriate number of samples required each month, and the maximum holding time for a distribution system bacteriological sample.

### **SMOKE AND DYE TEST APPLICATION**

**1:30-3:00 in Alvarado F**, 1.5 Credits - Wastewater

Mark S. Gallegos, City of Albuquerque

Edward DeHerrera, City of Albuquerque

Collection system personnel use both smoke and dye testing to detect existing and potential problem areas and to help evaluate the seriousness of identified problems. This presentation will cover smoke and dye testing procedures through both lecture and on-site demonstrations. The first half of the course will take place in the classroom with the remainder occurring as demonstrations outside the hotel.

### **GROUNDWATER PUMP BASICS**

**1:30-3:00 in Alvarado G&H**, 1.5 Credits - Water

James Bassett, TP Pump & Pipe Company

This presentation is intended to help the operator and board member understand the basics of water pumps. Topics covered will be submersible and boosted pump mechanics, reading pump curves, understanding total dynamic head, system curves, submersible motor installation and operation, system components and some system troubleshooting.

### **AFFORDABILITY OF ARSENIC TREATMENT SYSTEMS**

**1:30-3:00 in the Potter's Room**, 1.5 Credits - Water

Rich Cavagnaro, AdEdge Technologies, Inc.

This presentation will highlight key design factors and considerations for choosing effective and affordable arsenic treatment systems. Mr. Cavagnaro will talk discuss specific lessons learned from field implementation of this technology at multiple sites. Topics that will be explored include the importance of a complete water profile, key parameters affecting performance, system sizing, configuration, space, pretreatment and backwashing.

### **NEW MEXICO WATER LAW**

**1:30-3:00 in the Weaver's Room**, 1.5 Credits – Water/Wastewater

Elizabeth Taylor, Taylor & McCaleb, P.A.

In this fast-paced and interactive presentation, water law attorney Liz N. Taylor will present the basics of New Mexico water law. Building from the aquifer up, Ms. Taylor will explain how the law recognizes and sometimes protects water rights in New Mexico from the many demands made on the system. She will explain why, for example, the "use it or lose it" principle of water administration made sense when it was established, but why it is a major impediment to water conservation today. She will also review the questions that must be answered before any water right is purchased, as well as pitfalls for the buyer.

**OFFICE OF THE STATE ENGINEER WATER CONSERVATION PROGRAM****1:30-3:00 in the Turquoise Room, .5 Credits – Water/Wastewater**

John Longworth, New Mexico Office of the State Engineer

The New Mexico Office of the State Engineer's Water Use and Conservation Bureau offers technical assistance and education programs on water conservation for New Mexico drinking water providers. This presentation will outline the pilot test of a water use accounting methodology that includes a sector analysis, and is based on current research being implemented in two New Mexico cities. A partnership has also been formed with a third city to identify the effectiveness of their various water conservation and demand reduction efforts. The results of the research, pilot projects and partnerships will also be presented.

**OPERATOR CERTIFICATION PROGRAM UPDATE****3:30-5:00 in the Franciscan Room, 1.5 Credits – Water**

Mike Coffman, New Mexico Environment Department/Surface Water Quality Bureau

This workshop will cover operator certification regulations with an emphasis on recent modifications to the regulations and sampler certification requirements. The emphasis will be on drinking water certification. Discussion will include a review of the operator certification process and the requirements for the various levels of certification.

**UNDERSTANDING THE ROLE OF YOUR ENGINEER****3:30-5:00 in Alvarado F, 1.5 Credits – Water/Wastewater**

Patricio Guerrerortiz, New Mexico Board of Licensure for Professional Engineers

The New Mexico Board of Licensure for Engineers and Surveyors was established by law to ensure that only qualified persons are licensed to engage in such practices. This presentation aims to provide basic guidance for individuals and organizations whose goals of protecting the public welfare are complimentary to the Board's. Mr. Guerrerortiz will also provide examples of what constitutes engineering work, and how the communication between engineers and their clients can improve to the benefit of all parties involved and the public they serve.

**CATHODIC PROTECTION FOR WATER STORAGE TANKS****3:30-5:00 in Alvarado G&H, 1.5 Credits - Wastewater**

Jeffery A. Rog, Corpro Companies, Inc.

Cathodic protection has proven to be one of the most valuable emerging technologies for protecting water storage tanks and treatment tanks from destructive corrosion. Two main types of cathodic protection typically used for these structures are (1) galvanic or sacrificial anode and (2) impressed current cathodic protection. AWWA D104-04 is the current standard for impressed current systems. AWWA recently approved the publication of a new draft standard for galvanic anode cathodic protection. The instructor will review, compare and contrast the two types of systems and provide information on selecting and specifying these systems for water storage and treatment structures.

**EFFECTS OF SALT ON GROUNDWATER****3:30-5:00 in the Potter's Room, 1.5 Credits - Water**

Tim Cavellier, Zeta Core, USA

Most of the potable water in the Southwestern United States is extracted from groundwater wells and therefore the water is "hard." The measure of hard water is high levels of calcium and magnesium. Potassium and sodium chloride are used to extract and flush the hard water minerals from the water to make the water more desirable for potable use. Depending on the total hardness of the water, this can significantly increase the TDS of the wastewater from residential and commercial buildings. The presentation will discuss what can be done to keep the TDS at manageable levels.

**NEW MEXICO OPEN MEETINGS ACT****3:30-5:00 in the Weaver's Room, 1.5 Credits – Water/Wastewater**

Mary H. Smith, New Mexico Attorney General's Office

The class gives an overview of the New Mexico Open Meetings Act (OMA) and how this law applies to rural water associations subject to either the Sanitary Projects Act or other statutes requiring compliance with the state's sunshine laws. By giving a step-by-step review, this class will help association officers and employees understand their responsibilities under, and the intent and application of, the OMA. Issues such as which meetings must be open to the public, the requirements for notice, agenda and minutes of meetings, and when and how a meeting may be closed will be discussed.

**SECURING REVENUE BY SUSTAINABLE RATE SETTING****3:30-5:00 in the Turquoise Room, 1.5 Credits – Water/Wastewater**

Mark W. Crisp, C. H. Guernsey &amp; Company

Water and wastewater system rate designs, revenue generation and cost containment are critical components to maintaining a healthy utility. Simply paying the bills is not sufficient any more. The unfunded mandates from Federal regulators, cost of replacement of aging system infrastructure and the ever increasing pressure on securing potable supplies is stretching the revenue dollar. If your system is in a "death spiral" from increasing financial demands with little ability to generate the necessary revenue to cover costs, this class is for you.