

NMRWA 31st Annual Conference | Class Descriptions

Monday Morning

Distribution Systems

8:00-noon

Franciscan Room

3.5 credits – Water

Ron Schwarzwaldner, NMRWA

This session is geared toward water operators preparing to take their certification exam. The instructor will cover the basics of groundwater, wells, and distribution systems, including cross-connection control. Other topics that will be discussed include basic components, required testing, general requirements, operations and maintenance, and current best practices that assure a high-quality water supply.

Advanced Wastewater Problem Solving for Activated Sludge Process Control

8:00-10:15

Potters Room

2.0 credits – Wastewater

Ege Richardson, Aegean Consulting

This class will review 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. The effects of these process variables on the system's 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.

Water Sampling Technician I & II Certification

8:00-3:00

Alvarado F

5.0 credits – Sampler Technician

Violette Valerio-Hirschfeld, NMED Drinking Water Bureau

This workshop will cover water sampling requirements for compliance with the Safe Drinking Water Act (SDWA), sample site plans, sample containers, sample collection, preservation, holding times and sample form completion. The New Mexico Water Sampling Certification Study Guide will be used as the text for the class. The class will also include a field trip to the New Mexico State Scientific Laboratory, where lab personnel will cover what happens to the sample once it is delivered to the lab. The class is designed to help students prepare for the Water Sampling Technician Level 1 and Level 2 exams. Five classroom hours are required for Level 1 and ten classroom hours for Level 2 certification. The field trip is recommended for Level 2 certification.

Lab Skills for Water Treatment Operators

8:00-noon

Alvarado G

3.5 credits – Water

Bob Stuart, Hach Company

How do you know if you got the right answer? This workshop is an introduction to water testing techniques and systems for water quality measurements in applications including drinking water, wastewater, environmental

water, and industrial water. The techniques covered in the class include colorimetric chlorine analysis, pH measurement, and turbidity measurement. This class will feature live demonstrations. The instructor will emphasize proper sampling techniques, how to calibrate instruments, and how to verify results using standard solutions.

Audit Requirements

8:00-9:00

Alvarado H

1.0 credits – Board Training

Steve Archibeque, New Mexico Office of the State Auditor

The Office of the State Auditor (Office) will provide information about the status of recent legislation (amendments to the State Audit Act) that may have an impact on your organization. The Office will also discuss its *Requirements for Contracting and Conducting Audits of Agencies* (2.2.2 NMAC) that was issued on February 27, 2009, including the objectives of an annual financial audit, the scope of the audit, procedures for obtaining audit services, and management's responsibilities.

Comprehensive Water Audits: Accounting For Every Drop

8:00-10:15

Weavers Room

2.0 credits – Water

Don Van Veldhuizen, USA BlueBook

Learn the difference between a basic water audit and a comprehensive water audit so that your system can best manage its resources. We will discuss leaks, stolen water, meter accuracy, flushing, city uses, fire suppression, and distribution maintenance, and how these affect your finances.

From Ice Age to Adjudication: New Mexico's part of the Colorado River

8:00-10:15

Turquoise Room

1.0 credits – Water

Evert Oldham, Animas Valley Land & Water Company

An A to Z history of the Colorado River tributaries (Animas, La Plata, and San Juan) starting with their formation during the last ice age and progressing through the waves of human occupation and prehistoric farming to fur trappers, settlers, establishment of New Mexico's legal interest in the water under Territorial Law, statehood, Law of the River, interstate compacts, adjudication, Water Rights Amendment Act, and on up to the present adjudication CV74-184-1 and the judgments entered and issues yet to be decided. This presentation is 2 full hours in length and fast-paced. Attendees can expect a comprehensive lesson on New Mexico's Colorado River water interests.

NMOSE Gallons per Capita per Day Methodology

9:15-10:15

Alvarado H

1.0 credits – Board Training

.5 credits – Water

Cheri Vogel, New Mexico Office of the State Engineer

The New Mexico Office of the State Engineer (NMOSE) has developed a methodology for calculating gallons per capita per day (GPCD). The GPCD methodology is utilized by NMOSE in evaluating 40-year plans, water conservation plans, and water right permits. The presentation will explain the methodology and introduce the NMOSE GPCD Calculator (beta version). The Calculator, an Excel spreadsheet, allows drinking water suppliers to

calculate single-family, multi-family, and system total GPCD. It provides step-by-step instructions for data input and outputs graphs that can be used in reports and presentations. The NMOSE is requesting GPCD data from water rights holders in order to track progress over time.

Troubleshooting Activated Sludge

10:30-noon

Potters Room

1.5 credits – Wastewater

Don Van Veldhuizen, USA BlueBook

Learn the techniques to approach and solve challenges with the activated sludge process. The discussion will involve prevention, short term and long term solutions, and hardening a system to prevent or absorb future shocks and upsets.

Sanitary Projects Act: What you need to know

10:30-noon

Alvarado H

1.5 credits – Board Training

Richard Rose, NMED Construction Programs Bureau

Learn about recent changes to the Sanitary Projects Act that affect all Mutual Domestic Associations. Bring your questions and explore the law that provides the authorities and responsibilities for one third of all the community water systems in New Mexico.

USDA Rural Development - Overview of the American Recovery and Reinvestment Act of 2009

10:30-noon

Weavers Room

1.5 credits – Water / Wastewater

Martha Torrez & Lydia Gurule, USDA Rural Development

USDA Rural Development, Water and Environmental Programs was appropriated \$1.38 billion (nationwide) for rural water and wastewater disposal programs. The American Recovery and Reinvestment Act expands funding opportunities to develop water and wastewater facilities. Experts from USDA Rural Development will provide you with the latest updates on the Stimulus funding and how your system can access it.

Protecting Federally-Indebted Rural Water Districts & Associations From Municipal Encroachment

10:30-noon

Turquoise Room

.5 credits – Water

Steven M. Harris, Doyle Harris Davis & Haughey

Federally-indebted rural water districts and associations are entitled to the protection of 7 U.S.C. Section 1926(b) which forbids municipalities, utilities, and private water companies from selling water in competition with a federally-indebted rural water district/association. The course explains federal law and how to protect the association's territory and customers.

Monday Afternoon

Disinfection

1:30-5:00

Franciscan Room

3.0 credits – Water

Peter Nathanson, NMRWA

Join Peter Nathanson for a talk about disinfection, focusing on chlorination. Topics will include chlorination chemistry, breakpoint chlorination, chlorine residual testing, chlorination system operation and maintenance and troubleshooting, on-site generation and chemical dosing.

Chemical Feed: Keeping the Flow

1:30-5:00

Potters Room

3.0 credits – Water / Wastewater

Don Van Veldhuizen, USA BlueBook

Whether your preference is diaphragm or peristaltic, learn about operation, maintenance and troubleshooting of these work horses of water and wastewater treatment. You will also be able to determine which pump(s) will work best in your application and which pump(s) to avoid. Also, we will discuss calculating doses and setting the controls of the equipment. The class also involves a hands-on operation and maintenance section of popular chemical feed pumps.

Water Systems and Electrical Power

1:30-5:00

Alvarado G

3.0 credits – Water

Robert DeBuck & Roger L Payne, Buck Electric Company

This presentation will discuss simple ideas that can resolve and prevent major problems, thus saving your system thousands of dollars. Topics include: mixing water and electricity; resolving power quality problems and protecting pumps; costs, benefits, and downsides of variable frequency drives; lightning protection, using programmable logic controllers; generator repair and maintenance; solar power; and radio links.

Open Meetings Act: It's Easy to Comply

1:30-3:00

Alvarado H

1.5 credits – Board Training

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 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. We will discuss which meetings must be open to the public, the requirements for notice, agenda and meeting minutes, and meeting closure. We will also discuss the penalties for violating the OMA.

Water Tank Renovation

1:30-3:00

Weavers Room

1.5 credits – Water

Russell Brown, Tank Maintenance & Construction, Inc.

The instructor will present a case study of a 2 million-gallon municipal potable water ground storage tank, originally built in 1952 that has recently been renovated to "like-new" condition. Major corrosion problems were studied and cost-effective methods of modernizing the structure were adopted and executed on this large New Mexico tank. Upon completion, the tank was brought to the point where GASB 34 conforming "modified

approach “ methods left it fully depreciable again as a new structure. Photos of the major changes during the process and the corrosion mitigation systems are presented.

Using Pro-Biotics to Improve Wastewater and Water Treatment Practices

1:30-3:00

Turquoise Room

1.5 credits – Water / Wastewater

Rick Allen, BioLynceus Biological Solutions

Join Rick Allen to learn how the use of bioorganic inoculants and increased microbial activity can improve environmental processes, and why balancing these environmental processes work. Mr. Allen will provide information on the benefits of improving both wastewater and fresh water environments to meet compliance requirements and how these processes can save money for many small to large wastewater and water districts. Information will be provided on available programs that solve a variety of wastewater and water challenges, and differences between these programs.

Capacity Development: Needs, Requirements and Funding

3:30-5:00

Alvarado F

1.5 credits – Water

Rob Pine & Ron Romero, NMED Drinking Water Bureau

This presentation will discuss the concept of water system capacity and describe a model for a well-managed water system. Legal requirements will be discussed for different types of water systems as well as the connection to infrastructure funding through the Safe Drinking Water Act and the Uniform Funding Application.

Safe Drinking Water Act & Regulations

3:30-5:00

Alvarado H

1.5 credits – Board Training

Ron Schwarzwaldner, NMRWA

The class gives an overview of the rules and regulations by which water systems are regulated. Presentation will be in the form of a summary to familiarize board members with the operational requirements of a public water system.

Model for Conserving Water in Small Systems

3:30-5:00

Weavers Room

1.5 credits – Water

Joseph Quintana, Mid-Region Council of Governments of New Mexico

The Mid-Region Council of Governments has developed a model water conservation plan for small community water systems. The principal objectives of a water conservation plan are to reduce per capita water consumption by increasing efficiencies of water use, to prevent contamination of water resources, to minimize water waste in the community, and to prepare for water shortage emergencies. The model water conservation plan contains eight components and provides standard forms and a resolution to formalize the plan.

Mitigating Grease & Other Pollutants Seamlessly

3:30-5:00

Turquoise Room

1.5 credits – Wastewater

Rick Allen, BioLynceus Biological Solutions

Sanitary sewer collection systems are designed for conveyance of both normal and wet weather flows. The conventional method of addressing excess ground or storm water in sanitary mains starts with flow monitoring and modeling the sanitary collection system for wet weather impacts. To achieve a least-cost solution, the task for the utility is to narrowly differentiate the integrity of the sanitary collection system and only repair those assets that leak. When combined with a proactive maintenance and rehabilitation program, collection systems are then re-gentrified in a manner that supports sustainability for the collection system. Supported by real-world data, this presentation will discuss the development of the evaluation tools used to isolate sources of ground or storm water where it enters the sanitary collection system.

NMRWA 31st Annual Conference | Class Descriptions

Tuesday Morning

SCADA 101

8:00-noon

Franciscan Room

3.5 credits – Water

Andy Hutson, Controls West, Inc.

This workshop is an entry-level overview of the concepts and technologies of modern industrial process control, from the field to the office. An interactive presentation assumes attendees' understanding of only the most basic process control concepts, for example, knowledge of flow meter and the distinction between AC and DC voltage. Among topics of discussion are the features and benefits of SCADA systems, system architecture and scope, field devices, wiring and communication methods, basic process control concepts, and more.

Wastewater Membrane Bioreactors (MBR)

8:00-9:00

Potters Room

1.0 credits – Wastewater

Joel Rife, CDM

Membrane Bioreactors (MBR) are a relatively new and highly innovative wastewater treatment technology that is rapidly becoming popular in areas such as New Mexico where water resources are scarce and very high quality effluents are required for reuse. This talk will summarize the state of the MBR industry today, including fundamental concepts in the design of a MBR plant and a review of currently available MBR technology systems. Advantages and disadvantages of MBR technology will also be provided. (*Prerequisite for Wastewater Field Trip*)

Drinking Water Regulations Overview

8:00-10:15

Alvarado F

2.0 credits – Water

Violette Valerio-Hirschfeld, NMED Drinking Water Bureau

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

Tools: Drinking Water Watch and CCR Writer

10:30-noon

Alvarado F

1.5 credits – Water

Nora Romero, NMED Drinking Water Bureau

This workshop will demonstrate how to use the Drinking Water Watch web application available from NMED. Drinking Water Watch allows one to view a variety of information about any public water system including contact information, sampling results, violations and enforcement actions, and facility information. The presentation will also demonstrate how to use this tool to generate a Consumer Confidence Report, which is a requirement of all community water systems.

Tuesday Afternoon

Basic Water Mathematics

1:30-5:00

Franciscan Room

3.0 credits – Water

Peter Nathanson & Ron Schwarzwald, NMRWA

Join Peter and Ron for this practical session of operator math for water system operators. We will work through examples explaining dimensional analysis, electricity, geometry, flow and detention time, and chemical dosage. Bring your calculator for maximum enjoyment!

Sanitary Surveys

1:30-3:00

Alvarado F

1.5 credits – Water

Joe Savage, NMED Drinking Water Bureau

This presentation will discuss the regulatory basis for sanitary surveys and the inspection process. It will give water systems a clear understanding of what constitutes a regulatory and sanitary deficiency. Also discussed will be how a water system can prepare for a sanitary survey and the follow-up process.

Municipal Disinfection With Calcium Hypochlorite

1:30-3:00

Alvarado G

1.5 credits – Water

Zachary Adams, Arch Chemicals Inc.

The addition of calcium hypochlorite is a method for disinfection of drinking water. It is a dry, concentrated chemical that when dissolved, can be used to deliver available chlorine into municipal treatment stations. For years, gas chlorine has been the primary method of municipal water disinfection. Calcium hypochlorite provides a safer alternative to gas chlorine. A study was conducted to show that when using calcium hypochlorite, the residual available chlorine in the treated water remained constant over a 30 day trial. The results of this test proved that low available chlorine residuals could be maintained accurately using calcium hypochlorite as a disinfectant.

Terminology of the Office of State Engineer

1:30-3:00

Alvarado H

1.5 credits – Board Training

Jeffrey Albright, Lewis and Roca LLP

This presentation addresses recent initiatives from the Office of the State Engineer (OSE). Topics will include administration of underground water rights, vested rights, inchoate rights, leasing water rights, and administration of surface water rights. A handout of water law terms and samples of applicable case law will be provided. A summary of 2009 legislation will also be included.

A Strategic Approach to Leak Detection

1:30-5:00

Weavers Room

3.0 credits – Water

Heather Himmelberger, New Mexico Environmental Finance Center

Leak Detection should be part of an overall strategy to reduce real water losses in the distribution system. This presentation will discuss ways to assess the need and scale of a real loss reduction strategy based on actual numbers and the economic value of water. Also, this presentation will cover technologies that can be used to locate leaks within the system, and will outline the applicability, advantages and disadvantages of the various types.

Utility Locating - Techniques, Tips, and Ideas

1:30-3:00

Turquoise Room

1.5 credits – Water / Wastewater

Gene Dahle, PollardWater.com

As one manufacturer states, "It's a jungle underneath the surface." In this class we will discuss various types of metal detectors, line tracers, and other items on the market today to assist utility operators with the daunting task of utility line locating. We will discuss the strengths and weaknesses of each technique presented in this talk.

Regulatory Requirements and Enforcement - Staying in Compliance

3:30-5:00

Alvarado F

1.5 credits – Water

Nora Romero & Danny Valenzuela, NMED Drinking Water Bureau

There are many requirements public water systems must meet in order to remain in compliance with state and federal regulations. This workshop will summarize the key responsibilities and present a timeline for staying in compliance. The enforcement program will also be described so systems understand the enforcement process in the event they are out of compliance.

Meter Sizing and Application

3:30-5:00

Alvarado G

1.5 credits – Water

Ray Richardson, HD Supply Waterworks

Attendees will learn the proper sizing the water meter and the proper application for different types of meters that enhance the revenue of the utility, and increase the longevity and accuracy of the meter.

Recommendations for Hiring an Operator

3:30-5:00

Alvarado H

1.5 credits – Board Training

Peter Nathanson, NMRWA

Many communities are choosing to hire a contract operator as an alternative to a full-time operator employee. Join Peter Nathanson for this session where we will review and discuss New Mexico operator certification requirements, operator duties and responsibilities for small rural water systems, what a water board can realistically expect from a contract operator, recommendations for hiring a contract operator, and the components of a typical water system operator agreement for professional services.

GIS 101 and How To Get Started

3:30-5:00

Turquoise Room

1.5 credits – Water / Wastewater

Paul Bailey & Katie Radke, ESRI - Environmental Systems Research Institute, Inc.

This presentation will cover the basic concepts of geographic information systems and how to get started using tools of this type. ESRI, the world leader in GIS software, has developed fundamental AM/FM/GIS technology for utilities that can be used successfully to automate and integrate your organization's information processing. You can reduce operating costs, eliminate data redundancy, increase data integration and efficiency, automate analysis processes, and access the information in your facilities management system.

NMRWA 31st Annual Conference | Class Descriptions

Wednesday Morning

Water Process Instrumentation 101

8:00-noon

Franciscan Room

3.5 credits – Water

Lonnie Barker, Controls West, Inc.

This class offers an in-depth look at water process instrumentation. Areas of discussion include ultrasonic theory and echo ranging, basic troubleshooting, ultrasonic transmitters, ultrasonic transducers, ultrasonic controllers, advanced ultrasonic controllers, and software demonstrations. More specific topics include sound propagation, sound velocity, sound wave frequency, wave length, amplitude, beam angle, signal strength, noise levels, multiple signals, troubleshooting techniques for improvement of echo confidence, and echo algorithms. A wide range of instrumentation will be on hand to supplement instruction.

Requirements For Analytical Quality Control

8:00-9:00

Potters Room

1.0 credits – Wastewater

Gail Ann Huggins, Albuquerque Bernalillo Country Water Utility Authority Water Quality Laboratory

Laboratories performing analyses for compliance purposes are required to have analytical quality control procedures for monitoring the validity of tests and calibrations undertaken. Emphasis on how to ensure the quality of laboratory (method) performance and the quality of instrument performance will be discussed. The presentation will detail necessity of having a program, elements of a QA program, difference between quality assurance and quality control, and implementation of actions to correct deficiencies and to prevent potential problems affecting quality of data. The presentation will also include documentation requirements for those doing field testing.

Groundwater Rule Update

8:00-10:15

Alvarado A

2.0 credits – Water

Andy Edmondson, NMED Drinking Water Bureau

EPA published the Ground Water Rule in the Federal Register on November 8, 2006. The GWR will apply to all public water systems that serve ground water and will go into effect in December of 2009. The purpose of the rule is to provide for increased protection against microbial pathogens in public water systems that use ground water sources. The rule includes provisions for monitoring for systems with sources at risk, and actions to remove or inactivate contaminants, if found, to prevent them from reaching drinking water consumers. The Drinking Water Bureau will present an overview of the rule and give an update on their proposal for implementation of this regulation in New Mexico.

Advanced Water Operator Math

8:00-10:15

Alvarado C

2.0 credits – Water

Peter Nathanson, NMRWA

Math is an integral component of an operator's day, whether it is used to analyze laboratory or process control data, calculate efficiencies, determine chemical feed rates, check CT, or simply determine if your paycheck is correct. Join Peter Nathanson for this advanced operator math training session where we will incorporate a review of math fundamentals while working through typical problems dealing with dimensional analysis, electricity, flow and detention time, pressure and pumps, mass and concentration, and surface and weir loading rates. Please bring your calculator for maximum enjoyment!

Board Responsibilities

8:00-9:00

Alvarado F

1.0 credits – Board Training

Rick Bela, Placitas Trails Water Coop

This presentation will outline the responsibilities of a board of directors aiming toward the perspective of Mutual Domestic Associations (MDWCA). Topics will include the make-up of a board, officer duties, certificate of association, bylaws, election procedures, and the Governmental Conduct Act.

Infrastructure Funding Panel

8:00-9:00

Alvarado B

1.0 credits – Water

Alysia Leavitt, NMED Construction Programs Bureau

John Brooks, New Mexico Finance Authority

Presenters from different agencies will explain the funding opportunities they can offer to NMRWA communities. The agencies represented will include NM Environment Department Construction Programs Bureau, US Department of Agriculture, New Mexico Finance Authority, and New Mexico Department of Finance and Administration.

NM WARN (Water and Wastewater Agency Response Network)

8:00-9:00

Turquoise Room

1.0 credits – Water / Wastewater

Jerome K. Lewis, NMED Drinking Water Bureau

The NM WARN is/will be a statewide network of utilities that agree to provide assistance to other member utilities in the case of any kind of emergency situation. This presentation will describe a WARN, inform participants how it works and where we envision the NM WARN will go in the future. This is also a chance to encourage water systems to take advantage of this valuable resource and become a member of the NM WARN.

Field Test Fun-Total Residual Chlorine

9:15-10:15

Potters Room

1.0 credits – Wastewater

Susan Maupin, NMRWA

This presentation will explore the use of the DPD Colorimetric Method to determine Total Residual Chlorine in the field. Standard procedures for measurement and QA/QC will be covered as well as proper dilution techniques and pre-filtering of samples for low level results. The class format will combine lecture and hands-on demos along with class participation.

Asset Management - Next Steps in Implementation

9:15-noon

Alvarado F

2.5 credits – Board Training

Heather Himmelberger, New Mexico Environmental Finance Center

Asset Management is a concept that is here to stay. More and more funding agencies are looking toward encouraging systems to do asset management through incentives. It is important to learn where to begin asset management and understand tools that can be used to assist in this process. This presentation will discuss the basic concept of asset management and then move toward a discussion of implementing an asset management program at your utility.

Hiring An Engineer

9:15-10:15

Alvarado B

1.0 credits – Water / Wastewater

Stephen Grollman, Larkin Group NM

The class will review the Qualifications-Based Selection process (QBS) which is available to assist Communities in the selection and hiring of design professionals in compliance with the State Procurement Code. There will be a complete explanation of the QBS process and guidelines for proceeding from project inception to concluding a contract for professional services. Included in the discussion will be a sample Request for Proposals (RFP) to be used with modifications by the owner to suit the individual circumstances.

Trends in Water Treatment

9:15-10:15

Turquoise Room

1.0 credits – Water

Daniel Boivin, Smith Engineering Company

This presentation will discuss the development of water treatment issues and technology in the United States, with a focus on recent health concerns and innovative treatment technologies.

Small Advanced Wastewater Treatment Systems

10:30-noon

Potters Room

1.5 credits – Wastewater

Jerry May, Souder, Miller & Associates

Description, advantages, disadvantages, and budgetary costs for two types of small advanced wastewater treatment systems being utilized in New Mexico will be presented. The two advanced wastewater treatment systems to be discussed are integrated fixed film activated sludge (IFAS) and membrane bioreactor (MBR). Examples of recent design, construction and operation of these types of wastewater treatment systems will be discussed.

Surface Water and GWUDI Systems

10:30-noon

Alvarado A

1.5 credits – Water

Rob Pine & Danielle Shuryn & Roy Littleton, NMED Drinking Water Bureau

Peter Nathanson, NMRWA

The Safe Drinking Water Act regulations that apply to surface water systems are fairly numerous and complex. This workshop will give a summary of these regulations. The workshop will also discuss systems that have a source designated as Groundwater Under Direct Influence of Surface Water (GWUDI). The surface water regulations apply to GWUDI systems as well. The process to make a GWUDI determination will be discussed and GWUDI sample collection procedures will be demonstrated.

Alternative Disinfection Methods

10:30-noon

Alvarado C

1.5 credits – Water

Don Van Veldhuizen, USA BlueBook

Are disinfection byproducts causing you grief or is chlorine just not meeting your needs? Check out whether other chemicals or processes may suit your particular system better. We will cover UV, ozone, and other options that are available today.

Water Meters: The Good, The Bad, and The Reality

10:30-noon

Weavers Room

1.5 credits – Water

Lonnie R. Burke, Resource Wise

Metering is the most important tool that a water utility has for tracking total water usage. Water meters are the “cash registers” of water utilities, but few water purveyors run comprehensive meter programs. There are many stages of a good program, which include sizing, meter types, installation, testing, and tracking. Comprehensive examples will be given from field experience on the end results of what can happen when one does not have a good meter program. Meters are one of the best indicators of the condition of the water distribution system. Water management starts with knowing that the production and sale numbers are accurate.

The Geographic Advantage

10:30-noon

Turquoise Room

1.5 credits – Water

Paul Bailey, ESRI - Environmental Systems Research Institute, Inc.

Water utilities face the challenge of providing reliable service delivery with the competing demand for more efficient operations. These challenges can be overcome through the implementation of information system designed to support the various domains of a water utility responsible for designing, building, managing and maintaining its water system and facilities. A properly designed information system will support the integration of information and business processes across the common domains of the utility. Through the use of GIS tools information and services that support domain specific responsibilities can be shared and integrated across divisions and external departments, thereby eliminating technology and data silos.

Wednesday Afternoon

New Mexico Excavation Law Certification

1:30-5:00

Alvarado G & H

3.0 credits – Water

Vic Newton, New Mexico One Call, Inc.

This class provides an in-depth look at the state statutes, rules and regulations regarding excavation, and how burdens of responsibility can shift 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 and excavators who violate the law. Presentation will also cover new rules adopted by the PRC regarding administration of the law. Handouts of the NM Excavation Law and the appropriate NMPRC rules condensed into a student manual and a pocket size excavator's manual will be included. Participants will receive a certification from NMOC upon completion of this session.

Wastewater Process Instrumentation 101

1:30-5:00

Franciscan Room

3.0 credits – Wastewater

Lonnie Barker, Controls West Inc.

This class offers an in-depth look at wastewater process instrumentation. Areas of discussion will include ultrasonic theory and echo ranging, basic troubleshooting, ultrasonic transmitters, ultrasonic transducers, ultrasonic controllers, advanced ultrasonic controllers, and software demonstrations. More specific topics include sound propagation, sound velocity, sound wave frequency, wave length, amplitude, beam angle, signal strength, noise levels, multiple signals, troubleshooting techniques for improvement of echo confidence, and echo algorithms. A wide range of instrumentation will be on hand to supplement instruction.

Disinfection and Disinfection Byproducts

1:30-3:00

Alvarado A

1.5 credits – Water

Rob Pine, NMED Drinking Water Bureau

Peter Nathanson, NMRWA

This workshop will cover the basics of disinfection and the chemistry of Disinfection Byproduct (DBP) formation. The Safe Drinking Water Act regulations covering disinfection and DBPs will be reviewed. Finally, strategies for addressing DPB production will be discussed.

What Does Multi-Barrier Approach Really Mean? Bloomfield Learns Firsthand

1:30-5:00

Alvarado C

1.5 credits – Water

Anthony Galvan, Siemens Water Technologies Corp.

Don Castillo, NMRWA

John Eckley, City of Bloomfield

The City of Bloomfield, NM was notified that they had 18 months to bring their water treatment plant into compliance with regulatory standards. Their water quality non-compliance stemmed from inadequate pretreatment to handle rapid changes in turbidity levels that is typical with their surface water source. The solution was a Trident HS multi-barrier package treatment system to handle turbidity spikes. The City chose the system for its ability to be quickly installed and to handle flashy surface water sources. Further, since the Trident HS operates at a higher hydraulic loading rate, a smaller equipment footprint can be realized.

Groundwater and Wells

1:30-5:00

Alvarado F

3.0 credits – Water

Dan McGregor, Bernalillo County Public Works

Most water systems in New Mexico are dependent on groundwater and wells. Yet, many operators and board members have minimal education in geology, only a vague understanding of how groundwater and wells behave (or not), and little practical knowledge of water well construction. Not only does this class address those issues, it provides a thorough review of the terms, definitions, and concepts from Chapter 10 of the Certification Study Guide through real-life examples and applications of both theory and practice.

Creating the Local Government and Tribal Infrastructure Capital Improvement Plan (ICIP)

1:30-5:00

Alvarado B

3.0 credits – Water

Sonya Snyder & Renee Borrego, Local Government Division, NM Department of Finance and Administration

The Local Government Division/DFA will serve to guide communities in developing the 2011-2015 Infrastructure Capital Improvement Plan. This presentation will provide information on how to plan, use the website, link ICIP and capital outlay, budget, and estimate costs.

NM Office of the State Engineer and the State of Water Rights in New Mexico

1:30-3:00

Turquoise Room

1.5 credits – Water

John Romero, NM 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 State Engineer's Office. This will be an informative session on the activities of the State Engineer with general information on the agency. It will cover basic water right issues/terms as they would relate to MDWCAs and rural water users, including return flow, water rights transfers, and domestic wells. There will be a brief update on the agency's Active Water Resource Administration (AWRM) initiative, and a summary of the 2009 Legislative Session as it pertains to water-related issues.

Calculating CT

3:30-5:00

Alvarado A

1.5 credits – Water

Rob Pine, NMED Drinking Water Bureau

Peter Nathanson, NMRWA

The Surface Water Treatment Rules and the Groundwater Rule have disinfection requirements that impact, or soon will impact, many drinking water systems. Under these rules, systems that chlorinate must meet requirements for CT (Chlorine dose x contact Time). This workshop will look at the regulatory requirements for CT and will explain how to calculate CT.

San Juan Chama Project Transmission Lines - Lesson Learned

3:30-5:00

Turquoise Room

1.5 credits – Water

James H. Olsen, Albuquerque Bernalillo County Water Utility Authority

This presentation will describe the San Juan Chama Project's transmission line design, construction, and operational lessons learned. Specific topics will include: valving, hydrostatic testing, disinfection, warranty issues, pipe materials, construction coordination, and record drawings.