

2008 MEHA Groundwater/Wastewater Presentation Abstracts

Wednesday, October 1, 2008

Agricultural Cross Connection Workshop – This workshop is for anyone who is involved with inspection, enforcement or planning of water supply systems at dairy farms, in food processing plants, or other agricultural settings where the protection of drinking water against cross connections is essential. The workshop will involve in-depth discussions on case studies, problem solving and demonstrations for specific application of the devices to agricultural settings. The audience will participate in an exercise of hazard assessment and device application at a food processing plant. Be prepared to defend your decisions!

Source Water Protection Workshop – This is MDEQ's annual workshop that provides updates, information and training for local health department staff involved in groundwater and noncommunity drinking water supplies. A separate mailing went out to local health departments providing the agenda to this workshop session.

Advanced Information on Constant Pressure Systems – If you attend this session you will learn the difference between two types of Constant Pressure Systems – Pump Control Valves and Variable Frequency Drives. The advantages and disadvantages of each will be discussed. The presentation will include information on installation, operation and maintenance issues along with tank sizing requirements for each of these systems.

Geothermal Borehole Issues – Jump on the “Energy Efficiency” band wagon and listen to an industry expert from the Geothermal Association. Everyone is interested in finding ways to save money and energy in today's environment. How can you as a steward of the environment help others utilize energy from the ground in a safe and reliable way? What are the benefits and pitfalls involved in this technology? What problems may you encounter and how can they be solved?

Applied Geology – So you think you heard it all? So you think you know your soils? This is an advanced session for those who already have knowledge of Michigan's geology and how it relates to our ground waters. Expect to learn more on how you can utilize Michigan geology information and apply it to the siting and planning of drinking water systems that will work for the homeowner or potential business. Learn how to apply this knowledge to a proposed water system without wasting the “clients” time and money and potentially creating problems that you will have to deal with at a later time.

Corrosion Problems – What is corrosion? What factors contribute to corrosion? How do you deal with it? How do you protect against it? This will be a basic primer on what corrosion is all about, and will include practical and useful information about the issue.

Wastewater Industry Product & Technology Updates – Are you interested in finding out the latest on wastewater technologies, gadgets, and issues? If so, this is where you want to be! Various company representatives will be available to answer your questions, demonstrate how their technology or product works, and give insight to those who install, inspect, monitor or regulate homes and facilities for the safe and proper treatment of wastewater. This is NOT intended to be a “sales pitch”.

Telemetry for Regulatory Agencies – New techniques are available and cost effective for remote monitoring of wastewater treatment facilities and equipment. In today's economy, the reduction of staff and time available to monitor wastewater treatment is inevitable. How can you,

as a regulatory agent or a facility owner/operator, cut costs to ensure that waste is being properly treated and groundwater protected? Is there an economical and reliable way to monitor the effectiveness of wastewater treatment? Attend this session for answers to these questions.

What Works, What Doesn't, and What Is Unclear? – This is an informal group discussion or “face to face blogging” session. Enjoy refreshments, casual seating, and exchange of ideas, problems, and solutions regarding waste treatment for residential and commercial applications.

The Impact of Restaurant Wastes on On-Site Wastewater Treatment – You don't have to be a meteorologist to figure out how to get rid of “FOG” at a restaurant! The speaker will discuss how fats, oils, and grease prevent proper treatment of wastewater and methods of FOG separation along with the proper disposal of FOG's.

Wednesday Night Fire-Side Chat – As we work together toward resolution of the Licensing and Registration issue, we will be addressing various portions of the membership and the profession about FAQ's, details of the process, etc. in a relaxed setting alongside a camp fire. Feel free to just sit in and listen or bring questions, concerns, or ideas. If the weather is unforgiving, we will move the chat inside.

Thursday, October 2, 2008

Physical Issues with Wells & Chlorine – One of the Least Effective Products??? – Chronic coliform bacteria positive results have been found to occur even after multiple chlorination processes. Are you investigating **every** angle in trying to solve the problem, or simply defaulting on “simple chlorination practices” hoping that **one more** will take care of the problem? Is the chlorination process a permanent or temporary “fix”? This session will include the absolute ineffectiveness of today's chlorine and a demo of how pH and other factors relate to the biocidal vs. oxidative properties of chlorine, and how each side relates to the effectiveness on coliform, E. coli, and physical debris such as slime/iron bacteria, mineral deposits, or insects in wells.

Drinking Water Supply Case Studies – Listen to some of the experiences, both good and bad of what some local health department staff and others have gone through in dealing with specific water problems. One case will address metal contamination of residential wells by a milk processing plant. Another case study describes bacteria contamination of drinking water wells by tiny ants. The final case will go in depth to discuss the rehabilitation of a noncommunity well with chronic coliform bacteria problems from start to finish. This case study involved a team of investigators including well contractors, DEQ staff and industry experts in a cooperative effort to solve the problem.

Investigating & Correcting Coliform Bacteria Problems in Distribution Systems – Where do you begin to look for the source of the problem and how do you deal with it once it's identified? Treatment systems, piping systems, storage tanks, water heaters and other sources will be discussed. Corrective measures that may be taken, including chlorine treatment, sludge removal, and flushing will be emphasized.

What to Do with Notification of Migration – Have you been receiving documents of contamination migrations from the DEQ and simply filing them away (or tossing them out) without knowing how valuable they can be to you in the protection of drinking water sources? This session will show you how these notifications can be a useful tool in your job to protect public health and the environment.

MIGWWP – Michigan Interactive Groundwater for Wellhead Protection – A Live Interactive Demonstration – This will be a live demonstration of a new modeling technology for delineating Michigan’s wellhead protection areas (WHPA) using the statewide groundwater database. The technology substantially reduces the cost of WHPA delineation.

Point-of-Sale Statistics: Where We Are Now – Is your county considering a POS program? Do you want to know if this type of program will be beneficial to your community members or how to go about starting a program of your own? This is an update of LHD staff currently involved in POS programs in their county(s). The speaker will discuss issues, problems, concerns, and benefits of the program as it has or is unfolding in their jurisdiction. Be prepared to ask questions and or offer helpful suggestions!

Scrap Tire Use for Drainfields - How many times have you gone out in the field and observed something you have not seen before? It is true that times are changing and that it is often difficult to keep up with new technology. How many times has a “customer” asked for your suggestion on what to use or how to correct a deficiency or problem? This session is intended to help inform and educate you on recyclable materials and technology that may work better in certain circumstances. It may also help you recognize and understand if new materials or supplies being used in the water industry are approved for intended use, if problems have been encountered, and if so, what might be done to correct the problem.

If Water is the New Currency – Do We Have Enough Water to Waste? - An EPA WaterSense partner and WEF member, Onsite Wastewater is committed to public outreach and education: “to increase awareness that water quality is directly linked to the use of appropriate wastewater systems and their management.” In 2008, the second “Water to Waste: Water=Energy” publication was distributed throughout NW MI. It sought to cement the information that there is no distinction between water and wastewater - and if any 4th Grader can recite the ‘water cycle’ why is it so hard for adults to remember it? And that the hidden cost of water consumption and wastewater systems is the energy they consume. This presentation will focus on WaterSense and WEF’s promotion of “Liquid Assets” - a PBS documentary which details the over \$1/2 trillion price tag currently facing water and wastewater infrastructure. The choices we make now will determine the future ‘cost’ - and hence “If water is the new currency - do we have enough water to waste.”

DEQ Water Bureau Water Withdrawal & DEQ Issues – This is the “hot topic” in Michigan and the legislation right now. Come and listen to the Water Bureau Chief of the Lansing Operations Division, who has been directly involved with what has happened and what is happening with our legislators. The Water withdrawal legislation *will* have an impact on how you perform your job. The Chief will also talk about other DEQ issues that impact drinking water, groundwater and wastewater in Michigan.

Site Condo Planning – This session will bring together a proactive approach to planning for on-site drinking water and wastewater treatment at site condominium projects. Valuable information will be provided regarding regulations and trouble shooting problems that may arise with a project.

Computer Lab – Using Web Tools for Investigations – Attendees will learn about the various web tools available that will help them with the many facets of their daily work. The sessions will include Wellogic, WaterTrack, Michigan Environmental Mapper, Water Well Viewer, and other websites that contain up-to-date information. Sessions will be held in a computer lab with 12 computers to facilitate a hands-on environment. Wireless internet is available, so attendees are encouraged to bring their own wireless ready laptop to accommodate more than 12 participants.

GPS Scavenger Hunt on the Kettunen Center Property – Bring your GPS unit along with a cable to connect to the Center's computer for data transfer of the coordinates you will be seeking. Teams of one to two people will be let loose in the forest surrounding the facility to test your navigating skills and prowess in locating each "prize" box. The team to be the first back at the Center with the most "prizes" will be the winner! Not only is this an exercise to demonstrate your ability to utilize this technology, but also a team building effort.

Setting Up Remote Monitoring Systems - This "field demo" will actually take you through the process of setting up a remote monitoring system for wastewater treatment equipment.

Friday, October 3, 2008

The Real Truth on Coliform & Other Bacteria We Don't Even Know About, YET – This seminar will discuss coliform and E.coli problems, BUT there are so many issues that include other bacteria that are classified as "opportunistic pathogens" that our required testing procedures are missing. What role do heterotrophic bacteria play in our problems? Why can't you sometimes get a coliform bacteria free sample? What are some testing recommendations on how to determine IF the problem is contained in the well or coming from an outside source? The truth is out there....

Advanced Filter Pack Issues – Do you think the only reason a well pumps silt, clouds up or pumps sand is all due to the wrong size gravel pack in a well? Why aren't all wells filter packed? Does water travel the pack in the bore hole above the screen and what problems may become associated with that? This session will address these and many other questions regarding the practical aspects of filter packs and what the sanitarian should know that will help him/her in water well investigation and problem solving.

Investigating Drinking Water Chemical Contamination – This session will cover the tools and techniques needed to investigate contaminations that occur due to chemicals finding their way into our groundwater. This isn't your general plume delineation talk but a journey to the center of the problem.

Pre-Drilling Site Reviews – A PSDR is the proactive phase of the well permitting process that assesses the proposed water well drilling site, before drilling is started. LHD's need to ensure that appropriate factors are considered before water wells are drilled and must prevent State Well Code violations from occurring.