

2019 MEHA Presentation Descriptions

Monday, September 16

Licensed Establishment Pre-Conference

1:30 – 3:00*

MSU Rendezvous Dining Hall Tour

Dustin Schreiner, RS

Environmental Health Specialist, Montana State University

Description of Presentation:

Montana State University produces an average of 11,000 meals a day making it the largest food service operation in the state. This tour will give you the opportunity to visit MSU's latest state of the art dining hall and speak with the Chefs in charge. From blast chillers to gourmet desserts, there is always something to see (and eat!) at Rendezvous Dining Hall.

3:00 – 4:30*

Breweries 101: Brewing Process and Inspection @Bridger Brewing

Jeff Havens, RS/REHS

Food and Consumer Safety

Description of Presentation:

For the last six years, Bridger Brewing has been one of the leading breweries in the Gallatin Valley. On this tour their brew master will walk us through the facility and the process they use to turn water, hops, barley and yeast into the brews that have made them a local favorite. After the tour, attendees are encouraged to continue the conversation over a slice of Bridger Brewing's delicious and unique pizza offerings and a cold beverage of choice.

* Attendees must attend both sessions of the licensed establishment pre-conference and arrive in the hotel lobby by 1:15 pm to coordinate rides. Tour leaves promptly at 1:30 pm. Note that space for these sessions are limited and must be reserved during registration.

Land Pre-Conference –

1:30 – 2:30

Comprehensive Rule Updates at DEQ

Ashley Kroon, PE

DEQ, Public Water and Subdivision Section

Description of Presentation:

The Public Water and Subdivisions section is embarking on a comprehensive update of applicable rules and design circulars. This is an opportunity to see the schedule, the framework of the proposed changes, and ask questions.

2:45 – 5:00

Soils 101 Mini Workshop

Ashley Kroon, PE

DEQ, Public Water and Subdivision Section

Tony Hartshorn, PhD

Montana State University

Description of Presentation:

Most sanitarians could use a refreshing refresher on things like reduction-oxidation, the magic of the carbon cycle (as expressed by soils), and simple tips & tricks to make soil characterization (estimates of rock fragment, colors, textures, structures, and fizziness) not just fun, but functional. Here we will build on a successful pilot training for 40+ sanitarians held in Bozeman in May 2019. Honest-to-goodness testimonial from Gordon S.: "The soils class Ashley put on was the best Continuing Ed class" he'd been to in his 130 years!

Tuesday, September 17

8:15 – 9:00

Welcome Session

9:00 – 10:00

Opening Keynote

Using the Science of the Positive Framework to Navigate the Changing Environment of Public Health

Jeff Linkenbach, EdD

Montana Institute

Description of Presentation:

In the rapidly changing world of public and environmental health, we need skills and processes to help us adjust to community needs while maintaining our own life-energy. The Science of the Positive Framework is the study of how positive factors impact culture and experience. It focuses on how to measure and grow ‘the Positive,’ and has been applied for two decades with individuals, federal & state agencies, communities, and educational institutions. It is based on the core assumption that the positive is real and is worth growing – in ourselves, our families, our workplaces, and our communities.

The Science of the Positive Framework has been helping public health agencies across North America with simple ways applied to navigate complex systems change. At the center of this process is the Cycle of Transformation that moves through the four domains of SPIRIT-SCIENCE-ACTION-RETURN. In this approach, all efforts begin by intentionally and strategically honoring the underlying spirit of public health first, then moving into science to explore and assess data, which informs evidence and best practices for action, and positive returns on our investment of ourselves and our resources. In this opening keynote, Dr. Linkenbach will present core concepts of the Science of the Positive as he guides participants through interactive discussions to restore our energy and passion for the vital work that we all do.

10:30 – 11:30

Track I

Hydrogeology 101

John LaFave, MA, BS

Montana Tech

Description of Presentation:

Groundwater, often called the “hidden resource,” is one of Montana’s most valuable natural assets. In most rural areas, groundwater supplies all the domestic, stock, and ranch needs—and in some of Montana’s more “urban” areas, such as Missoula, Kalispell, and Sidney, it is the public water supply source. Groundwater also plays a crucial role in sustaining stream flow; about half of the total annual

flow in typical Montana streams is derived from groundwater. This presentation will introduce some basic concepts regarding the occurrence and movement of groundwater, and how groundwater and surface water interact or are interrelated.

Track II

Pathogens: Where They Hide and How to Prevent Them in Processing Facilities

Jane Ann Boles, PhD, MS
Montana State University

Description of Presentation:

Based on years of experience in commercial meat processing facilities and her research in the MSU meat lab, Dr. Jane Anne Boles will discuss pathogens associated with meat processing, the locations in processing facilities where she has located these pathogens and her suggestions on how to get them out and keep them out.

11:45 – 12:45

Track I

Tracking Montana's Groundwater: 20 Years of Lessons Learned

John LaFave, MA, BS
Montana Tech

Description of Presentation:

The Montana Bureau of Mines and Geology's (MBMG) Ground Water Assessment Program collects water-level measurements from strategically located wells across the state. Long-term groundwater-level records are the only direct measure of how aquifers respond to seasonal, climatic, developmental or land-use changes. This presentation will provide an overview of Montana's aquifers, where groundwater is used, what the monitoring data show with regards to the storage and quality of Montana's groundwater.

Track II

Charcuterie: Good Practices and Areas of Concern

Jane Ann Boles, PhD, MS
Montana State University

Description of Presentation:

This session will cover the different aspects of the process for commercial cured meats. Good practices and procedures related to cured or dried meat as well as, situations of concern to look out for. Dr. Jane

Anne Boles has years of experience as a consultant for the meat industry and is currently a research scientist in charge of the MSU Meat Lab.

2:00 – 2:30

Track I

Bozeman Creek Wastewater Multi-Tracer Investigation

Christine Sundnas, MS

Gallatin Water Quality District

Michelle Pond

Berkeley University

Lori Christenson, MPH, RS

Gallatin Environmental Health

Description of Presentation:

Bozeman Creek is on the Montana Department of Environmental Quality (DEQ) 303(d) List of Impaired Waters for an excess of *E. coli*. Previous studies have indicated that the *E. coli* is largely human-sourced and potentially entering the creeks from adjacent failing septic systems. Human-sourced *E. coli* is a strong indicator that other pathogenic organisms may be present. Since the creek is used for recreation, there is concern for public health. Additional analysis was needed to discern the source of contamination between humans and animals. This study used a multi-tracer approach to determine if human wastewater is contributing to the *E. coli* contamination of both Bozeman and Matthew Bird Creeks. Throughout the fall of 2018, water samples were collected from both creeks and analyzed for *E. coli*, as well as optical brighteners and human bile acids, which are biomarkers (tracers) of human wastewater.

The primary objective of this study was to see if there was a correlation between high, creek-adjacent septic density and the presence of human waste tracers in the creek in order to help inform action to address the public health issue.

A secondary objective was to evaluate the applicability of optical brightener sampling as a cost-effective method of screening for human wastewater contamination in Bozeman area creeks.

Finally, this project was undertaken in order to increase collaboration between Montana State University and county agencies and to engage environmental health students with their community while providing practical field and lab experience.

Track II

Flooding and Environmental Health in Helena

Peter Schade

Lewis and Clark County Water Quality District

Description of Presentation:

2018 was an exceptional runoff year for Tenmile Creek in the Helena Valley. Surface flooding from late April through mid-May of 2018 resulted in inundated neighborhoods, and basement flooding from groundwater was pervasive and lingered through August. Lewis & Clark County, in conjunction with local partners, responded with information and public education campaigns to help residents understand and better prepare for flooding in the future. This presentation shows 1) how and when the flooding occurred, 2) how residents and the public were affected, 3) how county services and residents responded, and 4) how the County is moving forward with flood mitigation and messaging.

2:30 – 3:00

Track I

Inflow and Infiltration Detection in Sanitary Sewers with Smoke Testing

Forrest Jay, PE

Water and Environmental Technologies

Track II

Lessons from a Decade of Behavior Change Based on Inspections

Sarah Robbin, MS, RS, REHS

Liberty County Environmental Health

3:15 – 4:15

Track I

Low Impact Development for Stormwater

Mark Peterson, PE

Advanced Engineering and Environmental Services

Description of Presentation:

Low Impact Development (LID) techniques are being used extensively for storm water controls. LID techniques are designed to attempt to replicate the original hydrology of a site by increasing infiltration in a variety of different configurations. They can be used to meet the requirements of the Initial Storm Water Facility defined in Circular DEQ-8. They are also sometimes promoted as a way to significantly reduce the storm sewer system required for a development.

This session will review some of the most common LID techniques that are being used and discuss the challenges associated with these techniques. It will also cover some of the basic assumptions that are needed to design these features, and how valid these assumptions are in Montana.

Low Impact Development techniques have the potential to significantly change how we approach storm water design. However, if the design of these features are not completed appropriately, they also have the potential to be very ineffective.

Track II

Licensed Establishment Plan Review in Montana

Alisha Johnson, MPH, MBA, RS, REHS
Missoula City-County Health Department

Jenni Frase, RS
Ravalli County Health Department

Josh Juarez, RS, CFM
Stillwater County Environmental Health

Description of Presentation:

This session explores the processes, approaches, and challenges with licensed establishment plan review from the perspectives of small, medium, and large counties. Each county will provide a brief overview of their plan review programs and then session will open to moderated Q&A.

Wednesday, September 17

8:00 – 9:00

Mid-Session Keynote

Lead Filtration and the Flint Water Crisis

Derek DeLand, MPH, RS/REHS

National Sanitation Foundation

Description of Presentation:

The problems in Flint, MI all started with a cost-saving measure. Soon after, corrosive water poured through water supply lines creating potentially one of the biggest public health emergencies in decades. This presentation touches on some of the causal events surrounding the Flint water crisis, the subsequent response, and how NSF International, its standards and certified products played a role. Attendees will gain a better understanding of the nature of the crisis, the safe drinking water requirements for lead, lead filtration, and the value certified products can have in environmental health protection.

9:15 – 10:15

Track I

Protecting Public Health—Who Does That?

John Shaw, PE

John Shaw Consulting

Description of Presentation:

Exactly who are the protectors of public health? Generally we include a pretty wide swath of folks and professions, from the public sector including the regulators, policy makers and managers to the private sector including the trash collectors, nurses and docs, water and wastewater utility workers, engineers and even the mailman and women.

We're going to talk about what part we play in this web of people and professions, how we interact with each other and how we can make that interaction work more effectively.

Get ready because I'm going to convince you that $1 + 1 = 3$.

Track II

Body Art Inspection Guide

Sarah Robbin, MS, RS/REHS

Liberty County Environmental Health

Description of Presentation:

11:15 – 12:15

Track I

Litigation in the Age of... What is this—Big Data, Social Media, the Millennials?

John Shaw, PE

John Shaw Consulting

Description of Presentation:

Oh, my how the landscape has changed in... the past few minutes. By the time I finalize my presentation until the time that I give it, things will have changed. We are going to talk about both my and your experiences in the public health industry with regards to litigation. Liability, responsibility, professional ethics, standards and policy, we'll see where it takes us. I have over two decades of experience in the forensic field as an engineer and operator and I've seen a bit, but I'm always amazed at how badly we can perform and how devastating the outcomes can be. Let's chat about how to make it better.

Track II

How Refrigeration Units Are Tested and Certified (& Why It Matters)

Derek DeLand, MPH, RS/REHS

National Sanitation Foundation

Description of Presentation:

This presentation is designed to help the sanitarian/environmental health specialist understand the construction and performance testing requirements of NSF/ANSI 7. With this knowledge, the labels placed inside certified refrigeration units such as, "for the storage and display of packaged products only", can be better understood. Labeled limitations placed on refrigerators can have implications for plan reviewed facilities and existing food establishments as well. As part of this presentation, the process of national consensus standard development, the value of standards and certification, and how regulators play a role will also be discussed.

1:15 – 2:15

Track I

Manganese in Drinking Water & Lead in School Water

Jon Dilliard, RS

Bureau Chief, DEQ, Public Water Supply Section

Myra Kelly, MS, BS

Manager, DEQ, Water Quality Standards Section

Description of Presentation:

Manganese in water and lead in school drinking water discussion centering on the sensitivity or the population and proposed solutions for the protection of public health, particularly our youngest citizens.

Track II

Wholesale Food: New Era, New Rules

Jeff Havens, RS/REHS

Food and Consumer Safety

Description of Presentation:

The wholesale food rule presentation will provide a brief overview about major changes in state food-safety regulations and standards, emphasized with participatory exercises.

2:45 – 3:45

Track I

Strategies for Organizing a Family Preparedness Event in Your Local Community

Brett C Lloyd, Based, MEP, CHEC, CPM

Lewis and Clark Public Health

Track II

Increasing Food Licensing Fees: Finding the Best Approach for 2021

Ed Evanson, MS, RS

Food and Consumer Safety

Description of Presentation:

It has been ten years since the legislature passed an increase to the food licensing fees. Compared to other states across the US, Montana ranks as near the bottom, and local departments need to find ways of funding environmental health as costs rise but income stays stagnant. It's time to increase fees, but we want to have the best strategy moving forward. Ed will provide background on licensing and propose some options for different fee structures. The session will open up to gather input from attendees, and a interim session working group established.