

Schedule

Wednesday, October 23

| Session | Presenter | Organization | Presentation Title |
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| Welcome Address: 10:00 – 11:00 am (Bitterroot, Sapphire, & Ponderosa Rooms) | | | |
| <ul style="list-style-type: none"> • Dr. Kumar Ganesan, Professor & Department Head of Environmental Engineering, Montana Tech • Stephanie Sorini, Executive Director, Butte-Silver Bow Chamber of Commerce <p>Stephanie Sorini has been active with the Butte-Silver Bow Chamber, serving six years on the board of directors and prior to being named the Executive Director, was the Director of Marketing and Membership Services. She at one time owned and operated a children’s clothing store in Uptown Butte called Munchkins. She is very active in the Butte community and recently took ownership of the Butte 100 mountain bike race entity, which attracts hundreds of racers to the area each July.</p> <ul style="list-style-type: none"> • Mike Cooney, Lieutenant Governor, State of Montana <p>Mike Cooney became Montana’s 32nd Lieutenant Governor in January 2016 when appointed by Governor Steve Bullock. Mike is a long-time public servant and elected official, having served in both houses of the Montana legislative branch and three terms as Secretary of State prior to being selected as Lieutenant Governor. A committed public leader for Montana, Lieutenant Governor Mike Cooney is Governor Bullock’s trusted partner as they work to advance the administration’s agenda of better jobs, better education and a more effective government.</p> | | | |
| Keynote Speaker: 11:00 – 11:45 am (Bitterroot, Sapphire, & Ponderosa Rooms) | | | |
| <p>Seth Gering, Senior Product Manager, Hexagon Environmental Stewardship – Technology for the Future</p> <p>This presentation will focus on innovative technologies in mining and related industries. Innovative monitoring devices with data integration will improve productivity, safety, sustainability, and profitability.</p> | | | |
| Lunch Speaker: 12:20 – 12:50 pm (Meadowlark, Cutthroat, & Grizzly Rooms) | | | |
| <p>Steve Thompson, Executive Director, National Center for Appropriate Technology (NCAT) Building Climate Resilience in Butte</p> <p>Climate change no longer is a question of future speculation. The real-world impacts are now becoming evident, albeit with different consequences based on geography and community readiness. Some communities are actively focused on local solutions, preparing for new stresses and shocks and even new opportunities. They are actively making the transition to a clean energy economy. Other communities, especially in rural America, have barely begun to have the conversation. Steve will talk about NCAT’s work to develop and promote local solutions and support resilient, rural communities. And he will discuss what’s happening locally to make Butte a more resilient and healthy community in an era of climate change.</p> | | | |
| Session 1: 1:00 – 2:40 pm | | | |
| Air Quality/ Env. Sustainability (Bitterroot Room) | Session Title: <i>Emerging Pollutants Session</i> | | |
| | Session Chair: Angela Hansen, Montrose Air Quality Services | | |
| | Rick Shoyer | Montrose Environmental | Water Treatment Design Decision-Making Complexities for PFAS |
| | Paul McGuire | Hedgegrow Hill Corporation | Commercial Scale Thermal Remediation of PFAS-Contaminated Soils |
| | Bill Hudson | Alaska Source Testing | Source Testing for PFAS/PFOS, and Related Air Emissions |
| | William C. Anderson | Eurofins TestAmerica | The Sampling and Analysis for the Characterization of Perfluorinated Alkyl Substances (PFAS) in Stack Gas |
| Water & Wastewater Technology (Sapphire Room) | Session Title: <i>Water Treatment</i> | | |
| | Session Chair: Martin Carlson, CDM Smith, Inc. | | |
| | Jonathan Brant | University of Wyoming | Separation and Recovery of Hydrocarbons from Brine Mixtures using Superhydrophobic/oleophilic Membranes |
| | Marcus Holland | Water & Environmental Technologies | Sustainable Nanofiltration Membrane Manufacturing Through Chemical Treatment of Microbial Cellulose |
| | Forrest Jay | Water & Environmental Technologies | Pollutant Transport in the Sanitary Sewer Collection System |
| | Steve Anderson | SepticNET, Inc. | SepticNET – Advanced On-Site Wastewater Treatment |
| Mining & Waste Management (Ponderosa Room) | Session Title: <i>Solid Waste & Remediation</i> | | |
| | Session Chair: Zachary Maassen, BOS Solutions | | |
| | Zachary Maassen | BOS Solutions | Reducing Solid Waste Generation at the Gold King Mine |
| | Kevin Mitchum | Sibanye-Stillwater | Sibanye-Stillwater’s Metallurgical Complex - A Proactive Approach to Environmental Stewardship |
| | Steve Ackerlund | Ecology & Environment | Development of a Risk Management Strategy for Prioritizing Response Actions at Abandoned Mine Sites |
| | Josh Bryson & Stacey Robinson | Atlantic Richfield Co. Land Design, Inc. | Remediation in the Urban Environment |
| Environmental Challenge (Room 103) | Orientation and Initial Role Player Event | | |

| Session 2: 3:00 – 4:40 pm | | | |
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| Air Quality/ Env. Sustainability (Bitterroot Room) | Session Title: <i>CO₂ Capture & Environmental Sustainability</i> | | |
| | Session Chair: Cal Loomis, Air Research Group | | |
| | Cal Loomis | Air Research Group | Green House Gases CO2 Capture on Small Utility Boilers, Is it Worth It? |
| | Mark Milner | Hemmera | Provincial Highway Transportation Health Impact Assessment (Air, Noise, Safety and Walkability) |
| | J.R. Giska | Oregon DEQ | Cleaner Air Oregon Implementation: Challenges and Opportunities |
| Annika Wallendahl | Sound Earth Strategies | Comparison of tBACT Requirements for Abrasive Blasting Units across Washington State | |
| Water & Wastewater Technology (Sapphire Room) | <p>Keynote Speaker:</p> <ul style="list-style-type: none"> Pedro Marques, Executive Director, Big Hole Watershed Committee <p>Management and innovation in wastewater, reclamation and air quality requires highly technical, specific expertise exemplified in the talks during this conference. So what is a small, community-based non-profit organization doing leading a major Superfund project on steep slopes in Anaconda? The Big Hole Watershed Committee has delivered nearly \$2 million worth of on-the-ground restoration in the past 4 years using a blend of hard and soft techniques, call it "Ecological Engineering", that includes everything from hand labor to high-tech UAS systems. This multimedia talk will highlight the unique benefits of working within a watershed approach and in diverse partnerships that cross disciplines and re-purpose technologies to deliver measurable ecological results for sediment reduction, water storage and ecological resilience.</p> | | |
| Mining & Waste Management (Ponderosa Room) | Session Title: <i>Successful Trust-led Site Management, Innovative Characterization, and Site Cleanup</i> | | |
| | Session Chair: Joel Gerhart, Pioneer Technical Services | | |
| | Lars Peterson | Greenfield Environmental Multistate Trust | Trust Led Site Management and Cleanup and Investigation Strategy |
| | Thomas Brown | Pioneer Technical Services | Site Demolition and Time Critical Removal of an Abandoned 10-Acre Process Liquid Waste Impoundment and Buried Site Wastes |
| Nick Tucci | Haley & Aldrich | Expedited Remedial Investigation: A High-Resolution, Data-Driven Site Characterization Using Innovative Technologies | |
| Environmental Challenge (Room 103) | Orientation and Initial Role Player Event | | |

Key:

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| Young Professional | Student |
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Schedule

Thursday, October 24

| Session | Presenter | Organization | Presentation Title |
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| Session 3: 8:30 – 10:10 am | | | |
| Air Quality/ Env. Sustainability (Bitterroot Room) | Session Title: <i>Environmental Management</i> | | |
| | Session Chair: Judy Aasland, CleanAir Engineering, Inc. | | |
| | Mike Rawitch | Ramboll | Leveraging Earth Observation Data and Artificial Intelligence to Improve Site Characterization |
| | Zach Klotovich | Idaho DEQ | Experiences with Low Emission Rate Particulate Matter Tests in Idaho |
| | Judy Aasland | CleanAir Engineering, Inc. | Smarter Data: The Future of Proactive Environmental Management & Reporting |
| Krista Kinsey | J.R. Simplot | The California Greenhouse Gas Cap-and-Trade Program – A Nitric Acid Facility's Adventure | |
| Water & Wastewater Technology/Mining & Waste Management (Sapphire Room) | Keynote Speakers: | | |
| | <ul style="list-style-type: none"> • Dr. Manish Kumar, Associate Professor of Environmental Engineering, University of Texas at Austin • Dr. Katherine Zodrow, Assistant Professor of Environmental Engineering, Montana Tech <p>Membranes are the fastest growing platform for water purification, wastewater reuse, and desalination. Synthetic membranes trade off selectivity and permeability: a higher-permeability membrane has a lower ability to separate solutes from solution or from each other. A strategy to produce high permeability membranes with high selectivity is to copy nature. Manish and Katherine will discuss bioinspired ideas for synthesizing an ideal membrane based on biological protein channels and artificial channels that mimic their structure.</p> | | |
| Air Permitting (Ponderosa Room) | Session Title: <i>Policy Changes in Air Permitting</i> | | |
| | Session Chair: Doug Hardesty, US EPA, Region 10 | | |
| | Doug Hardesty | US EPA, Region 10 | Air Permitting Policy Changes |
| | Doug Hardesty | US EPA, Region 10 | Air Permitting Kiln Emission Factors |
| | Beth Fifield Hodgson | Spring Environmental, Inc. | Ghosts and Goblins are Popping Up in EPA's Minor Source General Permits |
| Doug Hardesty | US EPA, Region 10 | Air Permitting for a New Lumber Kiln | |
| Session 4: 10:30 am – 12:10 pm | | | |
| Air Quality/ Env. Sustainability (Bitterroot Room) | Session Title: <i>Air Quality & Permitting</i> | | |
| | Session Chair: Tanya Wenzel, SLR International Corp. | | |
| | Madeline Camp | Puget Sound Clean Air Agency | Cocoa Bean Roasting: A Permitting Case Study |
| | Brian Renninger | Puget Sound Clean Air Agency | 3D Printing: Air Emissions and Air Permitting Concerns |
| | Erica Shuhler | Bison Engineering, Inc. | Subpart 6J – Area Source Boiler MACT: Group Therapy |
| Whitney Jurenic | Montana DEQ | Upstream Oil and Gas: An Air Quality Regulator's View | |
| Water & Wastewater Technology (Sapphire Room) | Session Title: <i>Electrokinetic Remediation & Nano-scale Adsorbents</i> | | |
| | Session Chair: Stephen Coe, Water & Environmental Technologies | | |
| | Tim Driscoll | Montana Tech | Enhancing the Efficiency of Electrokinetic Remediation Through the Use of Complexing Agents |
| | Dave Hutchins | Montana Tech | Efficient Magnetic Capture of Nano-scale Particles and Composite Adsorbents |
| | Caleb Lockyer | Student – Montana Tech | Investigation of Spatial and Temporal Distributions of Metals in A Stormwater Retention Pond After Storm Events |
| Zachary Maassen | BOS Solutions | Las Vegas Convention Center Expansion Foundation Installation | |
| Mining & Waste Management (Ponderosa Room) | Session Title: <i>Tailings Removal & Challenges</i> | | |
| | Session Chair: Cody Lechleitner, CDM Smith, Inc. | | |
| | Josh Vincent | Water & Environmental Technologies | Parrot Tailings Removal – Digging Up History |
| | Robert Pal | Montana Tech | Ecological Restoration after Reclamation in Butte, Montana |
| | Matt Vincent | Rampart Solutions | From Ground Zero to Full Speed Ahead: Butte, MT's ongoing story of Natural Resource Extraction, Environmental Restoration & Stewardship |
| Gregory Fontaine | Stoel Rives | Challenges of Permitting a Mine in Today's World | |

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| Environmental Challenge (Room 103) | Final Presentations | | |
| Session 5: 1:20 – 2:35 pm | | | |
| Air Quality/ Env. Sustainability (Bitterroot Room) | Session Title: <i>Community Monitoring</i> Session Chair: Kristina Schafer, QTSI, Montrose | | |
| | Isha Khanna | Puget Sound Clean Air Agency | Community Air Monitoring in the Puget Sound Region |
| | Mitchell Brouman | Field Environmental Instruments | Facility Monitoring System with Community Access, Campfire, CA |
| | Pat Clark | Montrose Air Quality | Study of Two Different, Low-cost Sensor's Accuracy |
| Water & Wastewater Technology (Sapphire Room) | Session Title: <i>Regulatory Programs & Education</i> Session Chair: Bill Henne, Water & Environmental Technologies | | |
| | Paul Conrad | Montana Tech | Developing Trees Tolerant to Degraded Mine Soils in Butte |
| | Evan Norman | Student – Montana Tech | Quantifying Low-Impact Stream Restoration in Headwater Regions |
| Mining & Waste Management (Ponderosa Room) | Session Title: <i>Waste Management at Bunker Hill</i> Session Chair: Amy Peccia, Maul Foster & Alongi, Inc. | | |
| | Karen Helfrich | Pioneer Technical Services | Diesel Emissions Reduction Implementation Plan for the Bunker Hill Mining and Metallurgical Superfund Site |
| | Alan Hughes | Maul Foster & Alongi, Inc. | Waste Management at the Bunker Hill Superfund Site |
| | Martin Carlson | CDM Smith, Inc. | Canyon Creek Repository Design and Construction; Challenges with a Previous Removal Action and Incorporating Adaptive Management During Remedial Design |
| Sustainability (Room 108) | Panel Session: <i>Beneficial Use of Remediated Superfund Sites in Butte, Montana</i> Panel Moderator: John McKee, Headframes Spirits | | |
| | <ul style="list-style-type: none"> • John McKee, Headframe Spirits • Joe Willauer, Butte Local Development Corporation • Kristen Rosa, Butte-Silver Bow, TIFID Administrator • Shanna Adams, HDR, Inc. | | |

Key:

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| Young Professional | Student |
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Schedule

Friday, October 25

| Session | Presenter | Organization | Presentation Title |
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| Session 6: 8:30 – 10:10 am | | | |
| Air Quality/ Env. Sustainability (Bitterroot Room) | Session Title: AERMOD & Regional Haze | | |
| | Session Chair: Luke Montrose, Boise State University | | |
| | Sergio Guerra | GHD | New Building Downwash Options in AERMOD |
| | Stephen Nelson | Coal Creek | Differences in AERMOD Results Using BPIP-PRIME and EBD Downwash Parameters |
| | Debbie Skibicki | Bison Engineering, Inc. | The Changing Look of Regional Haze Progress – Reducing Visibility Impacts Now vs Future |
| | Kyle Heitkamp | Ramboll | Current Round of Regional Haze Rule Updates |
| Water & Wastewater Technology/Minin g & Waste Management (Sapphire & Ponderosa Rooms) | Keynote Speaker: <ul style="list-style-type: none"> Eric Jacobsen, Senior Vice President of Operations, Extraction Oil & Gas (8:30 – 9:20 am) An Innovative and Responsible Approach to Colorado Natural Gas & Oil Development This presentation will convey key elements and outcomes of Extraction’s Broomfield Development Plan as a case study to explore the best practices necessary to economically and successfully develop important natural gas and oil resources while protecting public health and the environment. Extraction has taken on and met the challenge of satisfying stakeholder concerns by designing and executing the most thoughtful and innovative energy development plan in America. | | |
| Water & Wastewater Technology (Sapphire Room) | Session Title: Environment: Waterfowl and Salmon (9:20 - 10:10 am) | | |
| | Session Chair: Sergio Guerra, GHD | | |
| | Stella Capoccia | Montana Tech | Biology of Waterfowl at the Berkeley Pit; Designing a Protection Plan for Species Diversity |
| | Laurie Battle | Montana Tech | Modeling the Impact of Dam Removal on the Formosan Landlocked Salmon in The Context of Climate Change |
| Mining & Waste Management (Ponderosa Room) | Session Title: Reclamation (9:20 – 10:10 am) | | |
| | Session Chair: Marty Bennett, Pioneer Technical Services | | |
| | Colette LeMieux | Pioneer Technical Services | Constructing Erosion Control Practices in Steep and Remote Areas, Steep Slope Reclamation within the Anaconda Uplands |
| | Nate Hagen | Pioneer Technical Services | Upper Blackfoot Mining Complex, Lewis and Clark County, Montana |
| Policy & Regulation (Room 103) | Session Title: Environmental Policy | | |
| | Session Chair: Jeff Chaffee, Bison Engineering, Inc. | | |
| | Ryan O'Larey & Robyn Jones (Robyn is YP) | BP Cherry Point Refinery NW Clean Air Agency | OGI-Based Leak Detection: A Tale of Two Perspectives |
| | Steve Ackerlund | Ecology & Environment | The Impact of Robust Public Participation in a 30-year Commitment to Scientifically Assess Superfund Health Outcomes in Butte, MT |
| | Neil Westesen | Crowley & Fleck | No Good Deed Goes Unpunished: The Story of the Sunnyside Mine |
| | Jeff Chaffee | Bison Engineering, Inc. | The Decline of Montana's Natural Resource Industries, Environmental Benefits vs. Economic Costs? |
| Student Research (Room 108) | Session Title: Student Research | | |
| | Session Chair: Dave Hutchins, Montana Tech | | |
| | Anna Nugent | Student - Montana Tech | Host Mediated Rhizobiome Engineering to Develop Locally Adapted Soil Microbial Inocula |
| | Jesse Bunker | Student - Montana Tech | Modeling Rivers with Remote Sensing and Temperature Profiles: Potential for Application in Contaminant Transport |
| | Loran Brooks | Student - Montana Tech | Feasibility Study for Mine Waste Impacted Grove Gulch, Butte, MT |
| Session 7: 10:30 – 12:10 pm | | | |
| Air Quality/ Env. Sustainability (Bitterroot Room) | Session Title: Community Air Quality | | |
| | Session Chair: Stephen Nelson, Coal Creek | | |
| | Chris Kitchen | Sound Earth Strategies | Safety as a Driver for Indoor Air Quality |
| | Katheryn Kolesar | Air Sciences, Inc. | Giving Deserts their Just Deserts - Improving Characterizations of Desert Emissions |
| | Maarten Schrueder | Air Sciences, Inc. | Approaches to Improve Estimates of Fugitive PM10 Emissions from Open Area Sources in Support of Developing Emissions Inventories in Arid Environments |
| | Luke Montrose | Boise State University | A Study Design Concept to Assess the Utility and Durability of Wearable Real-time Particulate Monitors for use among Wildland Firefighters |

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| Air Quality & Health (Sapphire Room) | Session Title: <i>Air Quality & Health Impacts</i> | | |
| | Session Chair: David Finley, Spring Environmental, Inc. | | |
| | Andy Nutting | Student – Boise State University | The Impact of Outdoor Air Quality on a Skilled Nursing Environment: Evaluating Perceptions and Educational Opportunities |
| | Ken McGray | Apis-US, Inc. | Rounding R Squared: Deciphering Next-Generation Sensor Evaluations and Spec Sheets |
| | Sarah Coefield | Missoula County Health Department | Wildfire Smoke-Ready Communities – A Look at Mitigation Measures in Missoula County, Montana |
| Ken McGray | Apis-US, Inc. | Bootstrapping Data Quality for a Community-Based Air Pollution Monitoring Project | |
| Policy & Regulation (Ponderosa Room) | Panel Session: <i>CERCLA 108(b)</i> | | |
| | Panel Moderator: Gage Zobell, Dorsey & Whitney | | |
| <ul style="list-style-type: none"> • History of CERCLA 108(b) to Present: Gage Zobell, Dorsey & Whitney • Industry Perspective: Mark Thompson, Montana Resources • Recent Decisions and Future: Stephanie Regenold, Perkins Coie <p>After a brief presentation from each presenter on the above topics, a full panel discussion will follow, focusing on:</p> <ol style="list-style-type: none"> a. Are there misconceptions regarding the mining industry? If so, how are those misconceptions leading policy and how should they be addressed? b. Is bonding the appropriate tool to ensure funding for mine cleanup (i.e. bonding vs. insurance/tax)? How would other solutions, such as a tax, work and are they necessary and acceptable to industry and the public? c. How can the mining industry proactively address reclamation issues? What are the implications, in light of the increasing demand for minerals, if regulations impede industry's ability to develop new mines (supply) to meet demand? | | | |
| Young Professionals Career Panel (Room 108) | Moderator: Elizabeth Cochran, Spring Environmental, Inc. | | |
| | <ul style="list-style-type: none"> • Whitney Jurenic, Montana DEQ • Karen Helfrich, Pioneer Technical Services • Stella Capoccia, Montana Tech • Krista Kinsey, J.R. Simplot | | |

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