

**A Framework to Manage the Environmental Reality of
Orphaned and Abandoned Mine Lands
November 14, 2017
Speakers Biographies**

Panel 1: What do We Know About Our Sites

Jeff Graves

Director of the Inactive Mine Reclamation Program, Colorado Division of Reclamation, Mining and Safety, Colorado Department of Natural Resources. Has been with the State of Colorado for 16 years. Designed and implemented numerous mine reclamation projects for the State of Colorado as a Senior Project Manager. Prior to employment at the State of Colorado, worked as a staff geologist for 2 geotechnical engineering firms in the Denver area. Has a Bachelors of Science in Geology from the University of Colorado and a Masters of Engineering in Geological Engineering, with an emphasis in groundwater engineering, from the Colorado School of Mines. Interests include mining history, American history, mountain biking, hiking, and spending time with my family.

William Bullock

Mr. Bullock has 30 years of experience applying engineering and environmental science expertise to characterize and solve problems with uncontrolled hazardous materials sites and manage all phases of complex projects in challenging regulatory environments. He has extensive technical expertise in environmental engineering, waste management, surface water hydrology, and regulatory permitting, compliance and auditing. Mr. Bullock's experience includes start up and long-term management of a successful engineering consulting firm, a large-scale compost manufacturing company, and a heavy civil construction business.

Greg Nottingham

Greg Nottingham is with the Contaminated Sites Program of the National Park Service, U.S. Department of the Interior (NPS/DOI). This national program is responsible for policy, strategic consultation, and compliance in the area of contaminated site cleanup. During his 17 years with NPS, Mr. Nottingham has been project manager on more than 16 CERCLA sites, from mining, milling, and smelter sites to industrial sites and landfills. He is a NPS representative on the DOI Central Hazardous Materials Fund (CHF), Environmental and Disposal Liabilities (EDL) Work Group, DOI Contaminated Sites Initiative (CSI), and Federal Mining Dialog, among others. Mr. Nottingham previously worked at the state and local level in Indiana in the areas of wetland regulation (§401/404 program), hazardous materials management, pollution prevention, and CERCLA remediation. From 1996 to 2000, Greg lived in El Salvador, Central America, where he taught environmental science at several universities, performed contamination studies, and served as a technical advisor to the City Planning Office of San Salvador, the Ministry of Environment, and non-governmental organizations in the areas of water quality, environmental monitoring, and solid and hazardous waste management. Greg has a degree in biology from Wabash College and two graduate degrees from Indiana University, Master of Science in Environmental Science and Master of Public Affairs.

Panel 2: Reclamation, Water Management and Reuse

Diane Kelty

Diane has been working as a consultant with the Clear Creek Watershed Foundation for the past decade managing project agreements with organizations including the United States Environmental Protection Agency, United States Department of Agriculture-Forest Service, Colorado Department of Public Health & Environment, and Colorado Division of Reclamation, Mining & Safety. With more than 30 years of experience in business operations, project development, strategic planning and facility management, Diane also works with the Colorado Watershed Assembly and serves as a Recorder for the Colorado Water Conservation Board, Metro Round Table.

Jason Willis

Jason B. Willis is the Mine Restoration Project Manager for Trout Unlimited based in Salida, Colorado. He has received a B.S. in Plastics Engineering Technology from Penn State Behrend and an M.S. in Civil and Environmental Engineering from the University of Pittsburgh. Prior to coming to TU, Jason worked for 4 years at various engineering firms in the disciplines of structural, geotechnical, environmental, and civil engineering. He began working as a contractor for TU in 2011 for nine months on the Kerber Creek Restoration project in Colorado. Jason was brought on full-time to Trout Unlimited in October 2012, and focuses on restoration of mining impacted areas, in-stream enhancement, soil and water chemistry, project management and oversight, as well as stream channel morphology and river dynamics. He currently holds an Engineer Intern certification with the State of Colorado. He can be reached at jwillis@tu.org.

Devon Horntvedt

Devon supports environmental projects in a multitude of roles with a focus in mine remediation activities. His specialties include raw site assessment and characterization, soil and water sampling, work plan development, field activity management, work plan execution, safety officer (health site safety officer, radiation safety officer), and quality control officer.

Panel 3: Policy and Partnerships

Joel Chavez

Joel Chavez received both a Bachelor and Master Degree in Geology from the University of Idaho. He spent seven years working in the Mining industry, primarily in mineral exploration, and as a mine geologist. For the past 25 years he has worked for the State of Montana in engaged in all facets of mine reclamation. His reclamation activities have been conducted under both the Surface Mine Reclamation Act as well as under the Comprehensive Environmental Compensation and Liability Act (Superfund). He primarily manages design and construction of mine reclamation projects, though; he has, and continues to represent the State of Montana in all aspects of State, Federal and Responsible Party lead actions and Consent Decree negotiations. His experience in mine reclamation involves both simple and complex sites ranging in size from a tenth of an acre to over 1,700 acres with associated costs of between \$500.00 and \$140,000,000.00. Currently he represents the State of Montana in Consent Decree negotiations with Environmental Protection Agency and Atlantic Richfield over environmental damage caused by historic copper smelting in Anaconda Montana, while continuing to manage both large and small mine reclamation projects.

Mark Rudolph

Mark Rudolph has been an Environmental Protection Specialist with the Colorado Department of Public Health and Environment (CDPHE) for approximately 20 years and has 30 years of experience working on environmental projects including Superfund project management, site assessments, sampling investigations, and Brownfields redevelopment sites. Additionally, Mark has extensive knowledge in mine site reclamation, regulation and operations. He has experience in monitoring of air and water quality, emergency response and Quality Assurance and Quality Control planning.

Mark provided technical expertise in soil and water conservation, drinking water supply, sanitary system construction and forestry consultation for rural communities in the Dominican Republic. He is familiar with accessing information from public and private sources and carries out multifaceted tasks efficiently and independently. Mark is proficient in producing a large volume of high quality work and manages with streamlined efficiency. Mark is fluent in the Spanish language (both written and verbal). Mark is the Superfund Project Manager for the Bonita Peak Site, Summitville, Denver Radium and Smuggler Mountain Superfund Sites. Mark is also the CDPHE Brownfields Coordinator.

Mark loves anything outdoors including fishing, hiking, backpacking and backcountry snowboarding. He is an avid gardener and has 2 bee hives and lives in the downtown Denver area.

Ryan Ellis

Ryan Ellis works as a legislative and regulatory affairs specialist for the Interstate Mining Compact Commission. Ryan graduated from the Catholic University of America in Washington DC in 2013 with a bachelor's degree in Politics and has been working for IMCC for 4 years. He has worked on a range of mining and environmental protection related policy issues, but with a focus on abandoned mine land reclamation.

Panel 4: Stakeholders Perspectives

Bonie Pate

Bonie has been a project coordinator for the Colorado Department of Public Health and Environment, Colorado Water Quality Control Division since 1998. She is currently the senior project coordinator for the Nonpoint Source Program. She also worked with the Colorado State Revolving Fund Program in planning, environmental review and financing for the construction of wastewater and drinking water treatment facilities and developed the first loans for treatment of urban stormwater and abandoned mine discharges. Before joining the state, Bonie worked at the county level in Colorado and in New Zealand. She is also still a Tar Heel fan having relieved her undergraduate and master's degree from the University of North Carolina at Chapel Hill.

Laura Skaer

Laura Skaer is the Executive Director of the American Exploration & Mining Association (AEMA) (*formerly Northwest Mining Association*), a position she has held since December 1996. Under her leadership, AEMA has grown to be the largest membership-based mining industry trade association in the U.S. She has established a proven track record in successfully influencing the outcome of political dialogue, in building effective working strategies with key elected officials, in developing and coordinating the industry's response to legislative and regulatory issues, in improving the industry's public image, in effectively building coalitions with other natural resource industry groups and public land users, and in galvanizing the grassroots. She is a highly respected advocate at all levels of

government. She has thirty-seven years (17 in oil & gas; 20 in mining) of management, operations, legal and government affairs experience in the natural resource industries on private and public lands throughout the west, and specifically in Nevada, Washington, Colorado, Montana, Idaho, Oregon, Nebraska, Wyoming and Missouri. She has testified numerous times before various congressional and state committees on mining, environmental, public lands, oil and gas, and national, state & local tax issues; and has spoken at numerous conventions and technical meetings. In December 2013, she was named one of *100 Global Inspirational Women in Mining* by Women in Mining UK.

Brian Lorch

Brian Lorch is Director of Summit County Open Space and Trails Department, and has been engaged in purchasing and restoring abandoned mine sites in Summit County for 17 years. Brian also serves on the Board of Trustees of the Continental Divide Land Trust and Advisory Board of the Blue River Watershed Group. He has coordinated efforts by Federal, State, and local entities to accomplish mine cleanups and stream reclamation efforts throughout Summit County. Successes include three large scale stream restoration projects and over a dozen mine reclamation projects utilizing a variety of regulatory and funding mechanisms.

During his tenure, Summit County Open Space and Trails has protected over 6000 acres of patented mining claims, and has taken the lead to address environmental concerns associated with historic mining in Summit County. Brian's efforts were instrumental in passage of a tax funding measure to address water quality concerns in Summit County. Current efforts include working with the US Forest Service, numerous State and Federal agencies, watershed groups, private land owners, and other partners to restore a approximately four miles of the Swan River that was historically dredged, along with addressing water quality concerns associated with mines near Keystone and Breckenridge.

Michelle Hamilton

Michelle Hamilton has held a career in a variety of government roles from the federal level to more recently local government. Ms. Hamilton has been with the Town of Silverton since early 2015, prior to the Gold King Mine Spill. She holds a degree in Natural Resources Management and her focus for her community of roughly 600 people is on economic diversity and sustainability.

Joe Ryan

Joseph Ryan is a Professor and Bennett-Lindstedt Faculty Fellow in the Department of Civil, Environmental, and Architectural Engineering at the University of Colorado Boulder in Boulder, Colorado. He has been teaching and conducting research at the University of Colorado Boulder since 1993. He is affiliated with the Environmental Engineering Program in the College of Engineering and Applied Sciences and the Environmental Studies Program in the College of Arts and Sciences. Joe holds a B.S. degree in geological engineering from Princeton University and M.S. and Ph.D. degrees in environmental engineering from the Massachusetts Institute of Technology. His research and outreach focus on the fate and transport of contaminants in natural waters. Current research efforts include investigations of the role of organic matter and colloids in the speciation and transport of contaminants and the effects of oil and gas development on water quality. He and his co-authors have published seventy-some articles on these topics. Joe is the faculty director of the National Science Foundation-funded AirWaterGas Sustainability Research Network, a multi-institution team of twenty-seven researchers addressing the effects of oil and gas development on air and water resources in the Rocky Mountain region. He is a member of the American Geophysical Union, the American Chemical Society, and the Association of Environmental Engineering and Science Professors.