



TECHNICAL PROGRAM SCHEDULE

WEDNESDAY, SEPTEMBER 14 – AFTERNOON

Technical Session #1 - Diversity, Equity, and Inclusion—Words Matter Symposium

Sponsored by Deborah Green, GeologistWriter

Join us for a symposium featuring speakers who are pioneers in representing diversity in our profession—starting decades ago through today. Others will address the issue from the level of the individual—to ways it is being handled in schools, companies, and organizations—to current initiatives across the geosciences. Our speakers will tell their stories, lead exercises, and talk about how they have made a difference and how we can too. Come with your questions and concerns—the last 20 minutes of the symposium will be a panel discussion with all the speakers from the symposium.

Convener: Deborah Green

Room: Sunset 2

Time	Speaker	Title
2:00-2:05	Deborah Green	Introduction
2:00-2:20	Susan Steele Weir	Women in Tunnels - From Prohibited to a Career
2:20-2:40	Christopher Keane	Fostering a Thriving Geoscience Community Through Inclusivity – A Look at Current Initiatives
2:40-3:00	Sarah Kalika	But I'm Not Biased! Understanding the Connection between your Brain and your Implicit Biases
3:20-3:40	Alexia Mackey	Girlboss vs. Misogyny- Inspire or Destroy?
3:40-4:00	Laura Rosales-Lagarde	Teaching Geoscience as a Latino Female Professor in Nevada: A Small Door to Increase Diversity in the Field
4:00-4:20	Tiffany Smith	We are Still HERE: Amplifying Indigenous Languages and Knowledges in STEM
4:20-4:40	Minda Moe	Professionalism & Pronouns - An Exercise
4:40-5:00		Panel Discussion

Technical Session #2: Tunneling Symposium

Sponsored By Aldea Services and Brierley Associates

Conveners: Paul Headland, Ike Isaacson, and Mike Piepenburg

Room: Sunset 3-4

Time	Speaker	Title
2:00-2:40	Randy Essex	Keynote Geotechnical Baseline Reports - A 25-year Critique with Recommendations (aka Lessons Learned and Forgotten)
2:40-3:00	Aida Rezapour	A Digital Twin System to Manage the Uncertainties Associated with the Ground Conditions on Tunneling Projects (Presented by Sean Buchanan)
3:20-3:40	Victor Akeju	Assessment of the Clogging Behavior of Fine-Grained Soils through Geologic History
3:40-4:00	Enhedelihai Nilot	Tunnel Look ahead using the Active and Passive Seismic Method
4:00-4:20	Mark Dobson	Geologic Hazards Associated with Tunneling
4:20-4:40	Michael Piepenburg	June 24, 1971 Sylmar Tunnel Fire – A Grim Reminder
4:40-5:00		Discussion

Technical Session #3: Tectonics and Seismicity of the Walker Lane: A Potential Incipient Plate Boundary Symposium

The Walker Lane and eastern California shear zone currently accommodate ~20-25% of the relative dextral motion between the Pacific and North American plates. This zone of deformation poses significant seismic hazards to much of western and southern Nevada as well as eastern California. It has recently been responsible for several major earthquakes in the region. In this session, we review recent seismicity and crustal deformation along the Walker Lane, including its long-term evolution and potential to eventually develop into the primary plate boundary (i.e., heir apparent to the San Andreas fault).

Convener: James Faulds

Room: Melrose 3

Time	Speaker	Title
2:00-2:20	James Faulds	The Walker Lane: An Incipient Plate Boundary Dissecting the American West and Potential Heir to the San Andreas Fault

2:20-2:40	Scott Bennett	Invited Speaker: The Eastern California Shear Zone and Late Miocene Linkages to the Incipient Walker Lane and Gulf of California Shear Zone
2:40-3:00	Corné Kreemer	Geodetic Insights into Present-Day Strain Accumulation and Release in the Walker Lane
3:20-3:40	Craig dePolo	Las Vegas Basin – A Southern Element of the Walker Lane
3:40-4:00	Seth Dee	Geologic Mapping, Geochronology, and Fault Characterization in the Las Vegas Basin
4:00-4:20	Carla Rosa	Mapping of Surface Fault Rupture and Ground-Deformation Features of the 2019 M6.4 and M7.1 Ridgecrest Earthquakes
4:20-4:40	Seth Dee	Field Response and Surface-Rupture Characteristics of the 2020 M6.5 Monte Cristo Range Earthquake, Central Walker Lane, Nevada
4:40-5:00	Brian Olson	The 2020 Mw5.8 Lone Pine Normal-Faulting Earthquake Sequence, Eastern California

Technical Session #4: Water Management in the Era of Climate Change Caused Megadroughts and Mega-Floods Symposium

Climate change driven megadroughts and mega-floods are creating new challenges and uncertainties for water management agencies. Many existing water supply, flood control, and storm water systems were designed before the impacts of climate change were considered. Symposium presenters will be discussing the impacts of the current Southwestern U. S. drought on nearby Lake Mead, the impact of severe flooding on major cities, and innovative modelling and management tools that will help water managers adapt to changing hydrology.

Convener: Eric Kuhn

Room: Melrose 4

Time	Speaker	Title
2:00-2:40		Keynote: Bureau of Reclamation's Senior Management to Discuss the Impact of the Southwest Drought on Hoover Dam and the Colorado River
2:40-3:00	Mahdi Motagh	Flood Mapping and Monitoring by using Remote Sensing and Artificial Intelligence (AI): Examples from AI4Flood Project
3:20-3:40	Laura Quigley	Rapid Collaboration on Water Resource Management Projects in an Ever-Changing Climate
3:40-4:00	Sean Buchanan	Macroscale to Mesoscale. Using 3D Implicit Modelling to Understand Local to Regional Scale Hydrostratigraphy of North Carolina's Coastal Plain Physiographic Province
4:00-4:20	Tami Enberg	The Major Causes of the 2020 Flash Floods in the Jakarta Basin, West Java Indonesia
4:20-4:40	Alex Manda	Modeling the Effects of a Drain and Active Groundwater Pumping System on Storm Water Flooding in a Coastal Setting
4:40-5:00	John Robinson	The Time is Right to Add Deep Aquifer Recharge as a Resiliency Planning Tool

THURSDAY, SEPTEMBER 15 – MORNING

Technical Session #5: Landslides Part I

Sponsored by Geosyntec

The field of study for landslides is ever expanding with new technologies, innovations, and applications of the data. This three part session will traverse the spectrum of modeling, instrumentation and testing, inventory and susceptibility mapping, applied examples, hazard communication, and societal impact.

Room: Melrose 3

Moderator: Jennifer Bauer

Time	Speaker	Title
8:00-8:20	Jason Woodward	Industrially Managed Timberlands: A Comparison of Erosion Rates to Historical & Contemporary Practices
8:20-8:40	Martin Derby	A Comparison between In-situ Instrumentation & Remote Sensing Methods for Slope Monitoring within a Pipeline Right-of-Way
8:40-9:00	Gabriel Taylor	SR 112 / Jim Creek Landslide Stabilization – Alternatives and Lessons Learned
9:00-9:20	Lauren Miller	Landslide Analysis with Incomplete Data: Developing A Framework for Critical Parameter Estimation
9:20-9:40	David Longstreth	A Preliminary Comparison of Rock Strength and Turbidity in the Coastal Belt Franciscan Assemblage, South Fork Wages Creek versus South Fork Caspar Creek, using the Hoek-Brown Criterion, Mendocino County, California
9:40-10:00	Magdalena Vassileva	New Insights into Deformation Characteristics of the Hoseynabad Kalpush Landslide in Iran and its Catastrophic Failure in Spring 2019
10:20-10:40	Margaret Darrow	An Overview of the First Published Landslide Inventory in Alaska
10:40-11:00	Victoria Nelson	Mapping and Categorizing Landslides around Haines, Alaska.
11:00-11:20	Kayla Horning	Watching Paint Dry: An Overview of Lidar Data Processing

11:20-11:40	Shishay Kidanu	GIS-Based Landslide Susceptibility Mapping Using Analytic Hierarchy Process (AHP) in Fairbanks North Star Borough, Alaska
11:40-12:00	Kristin Mallett	Telling the Story: Developing StoryMaps for the 2020 Haines, Alaska Landslides

Technical Session #6: Naturally Occurring Asbestos (NOA) Symposium

Sponsored by EMSL Analytical

Naturally Occurring Asbestos: asbestos and other fibrous minerals research, detection, mitigation, and health impacts. Case studies from the Western United States and Europe.

Room: Sunset 2

Conveners: Sarah Kalika and Mark Bailey

Time	Speaker	Title
8:00-8:20	Sarah Kalika	NOA Basics & Case Studies
8:20-8:40	Mark Bailey	High Resolution Electron Microscopy (TEM/SEM) Images of Amphibole Fibers and their Impact on the Definition of Asbestos
8:40-9:00	Ambra Hyskaj	Textural Arrangement of Naturally Occurring Asbestos with Accompanying Minerals in the Albanian Ophiolites
9:00-9:20	Elisabeth Kennedy	Naturally Occurring Asbestos in the Paradise, CA Area
9:20-9:40	Brenda Buck	Update and Overview on Naturally Occurring Asbestos in Clark County, Nevada, USA
9:40-10:00	Mark Bailey	NOA in Death Valley Talc
10:20-11:00	Jean Ptau	Lessons from Libby, Montana: Autoimmune mechanisms of Asbestos Health Outcomes
11:00-11:20	Bradley Erskine	Case Study Response to an NOA-containing Rock-fall on Highway 95 near Riggins, Idaho in the Western Idaho Ultramafic Belt (Presented by Mark Bailey)
11:20-11:40	Mark Bailey	Fibrous minerals of lakebed and alluvial fan deposits of the Great Basin
11:40-12:00		Discussion

Technical Session #7: Wild Problems with Geophysics Solutions Symposium

Sponsored by ConeTec

Many standard & wild geological and geotechnical issues can be appraised inexpensively & relatively quickly with geophysics – but not "your father's" geophysics! Geophysical methods have long been used for subsurface investigations. These methods have become the standard in preparation for engineering studies, such as infrastructure construction. The full breadth of geophysical investigations' capabilities and applications, as well as the interpretation of geophysical results and their presentation in the clients' jargon, can be utilized to answer some of the wildest problems geologists and engineers have seen. This symposium will present talks explaining newer concepts, providing case studies where novel geophysics methodology, applications, or complementary methods assisted in solving clients' common problems in engineering, environmental projects, and beyond.

Room: Sunset 3-4

Conveners: Kathryn Murdock and Gregory Hempen

Time	Speaker	Title
8:00-8:40	Mario Carnevale	Why not Geophysics?
8:40-9:00	David Wilshaw	Advanced Continuous Surface Wave Testing (ACSW): Geologic and Geotechnical Site Characterization for the 21st Century
9:00-9:20	Brooklyne Goode	Greensboro Randolph Megasite – Seismic Refraction Testing as a Rippability Assessment and Excavation Estimation Tool
9:20-9:40	Roy Bowling	Applying Seismic Velocity Mapping for Landslide Shear-plane Identification, Theodore Roosevelt National Park
9:40-10:00	Greg Hempen	Advantages of Multiple Geophysical Methods at Pre-1970 Dams
10:20-10:40	Katherine Dlubac	California's Statewide Airborne Electromagnetic Surveys Project
10:40-11:00	Jared Warner	Subsurface Characterization and Development of Pole Foundation Design Groups for Utility Fire Risk Mitigation Programs
11:00-11:20	Kathryn Murdock	Magnetic Methods as a Hazard Assessment Tool: Detecting, Delineating, and Monitoring Underground and Surface Fires
11:20-11:40	Jeffrey Leberfinger	A New Method for Providing Accurate Locations for Geophysical Data in GPS Denied Areas: SLAM LiDAR
11:40-12:00		Discussion

Technical Session #8: Dams and Levees Symposium Part I

Sponsored by Schnabel Engineering

The Dams Technical Working group is pleased to host this year's Dams and Levee Symposium! We have a great lineup of wide-ranging talks including case histories, landslides impacting dams, instrumentation, paleoflood analyses, karst foundation issues, and erodibility studies of spillways. Our symposium will kick off with our Keynote Presentation on Hoover Dam – Past, Present, and Future, by Brian Simpson (Reclamation); we'll have a second keynote presentation on Mosul Dam Foundation and Emergency Grouting, by Georgette Hlepas (USACE). Join us! You will not be disappointed.

Room: Melrose 4

Conveners: Holly Nichols and Ellen Engberg

Time	Speaker	Title
8:00-8:40	Bryan Simpson	Keynote: Keynote: Hoover, Not Just Another Dam Lecture
8:40-9:00	Brian Greene	Geology as Related to Featured Dams and Cofferdams in Western Pennsylvania
9:00-9:20	Scott Walker	Flagship of the TVA: A Case History of Norris Dam
9:20-9:40	Visty Dalal	“One Foot on the Banana Peel, and Another in the Grave” George Aubin – a Proud Octogenarian Dam Owner!
9:40-10:00	David Serafini	California's Statewide Airborne Electromagnetic Surveys Project
10:20-11:00	J. David Rogers	Recognition of Prehistoric Landslide Dams and Catastrophic Outbreak Floods
11:00-11:20	Bodie McCosby	The Eightmile Lake Restoration Project - Characterization of a Landslide Dam
11:20-11:40	Joseph McElhany	Rockfall Protection for a Small Hydroelectric Dam in a Steep Canyon
11:40-12:00	Todd Loar	Abutment Stability Analysis – Quantitative Risk Assessment for Libby Dam, Montana

THURSDAY, SEPTEMBER 15 – AFTERNOON

Technical Session #9: Infrastructure and the Environment: Impacts on the Built World Symposium

Sponsored by Bryan Environmental Consultants

AEG's Infrastructure and the Environment Symposium will examine many ways that human infrastructure impacts the environment—not necessarily from roads and bridges—but from pharmaceutical and PFAS contamination, to aquaculture, and uranium mining. The focus will be on the role that environmental and engineering geologists play in the process. Our featured local speakers will include experts from the Nevada DEP, the Southern Nevada Water Authority, the Desert Research Institute (DRI) and Geosyntec Consultants. AEG members will come away with a real sense of the environmental challenges their colleagues in Nevada are dealing with in 2022.

Room: Sunset 2

Conveners: Patty Bryan, Loren Lasky, Kevin Finneran, and David Ebinger

Time	Speaker	Title
1:40-2:20	Ben Moan	Per- and Poly-Fluoroalkyl Substances (PFAS) – Occurrence and Update on Regulatory Framework
2:20-2:40	Molly Small	Establishing the NORM for Nevada – Mining Regulatory Updates for Uranium in Groundwater
2:40-3:00	Katerina Papp	Characterizing the Chemical and Microbial ‘Fingerprint’ of Unsheltered Homelessness in an Urban Watershed (Presented by Danial Gerrity)
3:20-3:40	Adam Katlein	Per- and Poly-fluoroalkyl Substances (PFAS) Site Investigation and Management Planning Strategies
3:40-4:00	Ariel Atkinson	Legionella Occurrence Monitoring in Las Vegas Valley Groundwater
4:00-4:10	Khalid Haji Omar	Poster Speed Talk: Removal of a Mixture of Toxic Metals and Metalloids from Petroleum Produced Water by Dolomite Filtration
4:10-4:20	Shawna Hunnicutt	Poster Speed Talk: Analyses of Spring Water Chemistry and Microbiology in the Spring Mountains, Nevada
4:20-4:40	Ahdee Zeidman	Degradation of Antibiotics in Aqueous Phase using Immobilized Zero-Valent Iron Nanoparticle
4:40-5:00	Wayne Isphording	Wind, Water, and Slope. Taken Together they all say “NOPE”! A Case History of Aquaculture Litigation

Technical Session #10: Dams and Levees Symposium Part II

Sponsored by Schnabel Engineering

Room: Melrose 4

Conveners: Holly Nichols and Scott Walker

Time	Speaker	Title
1:40-2:20	Georgette Hlepas	Mosul Dam Foundation and Emergency Grouting
2:20-2:40	Emily Erhart	Seepage Investigation of Embankment Dam to Evaluate Potential Failure Modes
2:40-3:00	Matt Buche	A Closer Look at Instrumenting Old Casagrande Piezometers with New Vibrating-Wire

		Sensors
3:20-3:40	Keith Kelson	Using Paleoflood Analyses to Improve Hydrologic Loading for USACE Dam Safety Risk Assessments: A Nationwide Approach
3:40-4:00	Keith Kelson	Developing a Regional Paleoflood Chronology for Dam Safety Risk Assessments in the Upper Willamette River Basin, Oregon
4:00-4:20	Amy LeFebvre	Improving Hydrologic Loading for Libby Dam Using Paleoflood Analysis Along the Kootenai River, Northwestern Montana
4:20-4:40	Mark Swank	The River's Edge – the Story of a Levee Setback and Restoration Project
4:40-5:00	Luke Johnstone	Advanced Monitoring/Modeling of Surface-Aquifer Interactions of a Levee System and Infrastructure Design Implications

Technical Session #11: Hydrogeology & Groundwater Recharge

Daily, communities across the world are faced with dwindling water resources and water shortages. The research and work being conducted by experts in hydrogeology and groundwater recharge are providing the tools to successfully address these issues. Share your research, experiences, and lessons learned in this session.

Room Sunset 3-4

Moderator: James Prieur

Time	Speaker	Title
1:40-2:00	Michael King	Funeral Mountain Nevares 2 and BLM-1 Wells: A Window into Inter-Basin Flow & Potential Off World Life
2:00-2:20	Shagun Garg	Surface Sinking due to over Extraction of Groundwater: Case study of Delhi NCR, India
2:20-2:40	Eric Cross	Hydrogeologic Characterization of Sand/Gravel Aquifers and Stratigraphic Analysis Using Electrical Resistivity Tomography
2:40-3:00	James Prieur	Hydrogeology and Climate Effects on Municipal Water Supply Systems in the Spring Mountains, Nevada
3:20-3:40	Jason Mace	Well System Management Program
3:40-4:00	A. Bruce Rogers	Hydrogeology of Stress-Relief and Regional Fracture Regime Integration - Engineering and Environmental Case Studies
4:00-4:20		
4:20-4:40		
4:40-5:00		

Technical Session #12: Landslides Part II

Sponsored by DiGioia Gray

Room Melrose 3

Moderator: Jennifer Bauer

Time	Speaker	Title
1:40-2:00	Larry Gurrola	Debris Flow History of the Montecito Watersheds, Southern Santa Barbara County, California
2:00-2:20	Larry Gurrola	Bedrock Landslides and Historic Outbreak Flood Events, Community of Montecito and Vicinity, Southern Santa Barbara County, California (Presented by J. David Rogers)
2:20-2:40	William Haneberg	Laprak Revisited: Understanding the Response of a Large Himalayan Landslide to the 2015 Gorkha Earthquake
2:40-3:00	Greg Martin	Clatskanie, Oregon: Case Study of an Active Landslide in the Oregon Coast Range
3:20-3:40	Cory Wallace	Characterization of Debris Flow Hazards Along the San Juan Skyway, Colorado
3:40-4:00	Jennifer Bauer	Landslide Mapping in Transylvania County, NC - Historic Storms and New Data
4:00-4:20	Ronald Johnson	Parkway Drive Landslide, Evaluation and Remediation - Risks with the Expanding Urban Interface Part I
4:20-4:40	Jay L. Griffin	Parkway Drive Landslide, Evaluation and Remediation - Risks with the Expanding Urban Interface Part II
4:40-5:00	J. David Rogers	Forensic Analysis of Megaslides along the Echo and Vermillion Cliffs of N. Arizona

FRIDAY, SEPTEMBER 16 – MORNING

Technical Session #13: Geologic and Seismic Hazards Part I

Sponsored by Geosyntec

This technical session, organized and convened by AEG's Geologic and Seismic Hazards (GASH) Technical Working Group, showcases practical examples illustrating how data were collected and analyzed to evaluate a broad range of hazards in a variety of geologic and geographic settings. Presentation topics address analysis methods for prioritizing geohazard risks, including landslide

and slope monitoring; rockfall hazard evaluations in Peru, Puerto Rico, Idaho, and California; February 2019 alluvial fan flood damage inferred from available information, Coachella Valley, California; seismic hazard assessment of the Musandam Region, Sultanate of Oman; seismic design criteria for the Southern Salton Sea, California; the California Earthquake Clearinghouse database for the 2019 Ridgecrest earthquake sequence; geologic characterization of the Healdsburg-Rogers Creek fault stepover, California, for mitigation and real estate evaluation; role of erosion in development of ground fissures around Lake Ziway, Ethiopia; evaluation of geologic and seismic hazards for two nuclear power units in Georgia, the first to be constructed in the United States in more than three decades; geologic and structural engineering assessments for school buildings in Washington; geotechnical design of permafrost and wetland mitigation for Colorado State Highway 5; and updates to Quaternary fault maps for the areas of Carson City and New Empire, Nevada, with implications for the Basin and Range Province. By discussing the practical examples on data collection and analysis methods for evaluation of geologic and seismic hazards, speakers will inform session attendees about proven methods that can be applied for evaluation of similar hazards at other locations.

Room: Melrose 3

Moderators: Gerry Stirewalt and Kelley Shaw

Time	Speaker	Title
8:00-8:20	Benjamin Haugen	Using GIS, Remote Sensing, Machine Learning, and Multi-Criteria Analysis to Prioritize Geohazard Risks
8:20-8:40	Presty Paulose	Time Domain Reflectometry for Innovative Landslide and Slope Monitoring
8:40-9:00	Cassidy Grady	Remote Rockfall Hazard Mapping in the Arequipa Region of Peru
9:00-9:20	Brian Forsthoft	Protection of Homes in Puerto Rico from Massive Rockfall
9:20-9:40	James Struthers	Bullseye Rock Slope Mitigation Development, US 95 Riggins, Idaho
9:40-10:00	Brian Olson	Earthquake-Induced Rockfall and Liquefaction from the 2020 Mw5.8 Lone Pine Earthquake in Eastern California
10:20-10:40	Issa El-Hussain	Seismic Hazard Assessment for Selected Sites in Musandam Region, Sultanate of Oman
10:40-11:00	Christopher Corder	Seismic Design Criteria and Soft Sediment Geology in the Seismically Active Southern Salton Sea
11:00-11:20	Cynthia Pridmore	The California Earthquake Clearinghouse - Ridgecrest Earthquake Sequence 2019
11:20-11:40	William McCormick	Healdsburg-Rodgers Creek Fault Stepover: Detailed Geologic Characterization for Engineering Mitigation and Real Estate Evaluation
11:40-12:00	Yonathan Admassu	The Role of Internal Erosion in the Development of Ground Fissures around Lake Ziway, Ethiopia

Technical Session #14: Land Subsidence Symposium Part I

Sponsored by ConTec

The AEG's Subsidence Working Group is pleased to convene the Land Subsidence Symposium at the 65th annual meeting of AEG in Las Vegas, Nevada. This is the second of what we plan to be an annual Subsidence Symposium since the initial symposium at the 1995 Annual Meeting in Sacramento, California. Initial presentations focus on coastal subsidence processes that exacerbate the effects of sea-level rise. Subsequent presentations include simulation, monitoring, and infrastructure damage, caused by groundwater extraction and karst, and prevention of subsidence in coal mined areas.

Room: Sunset 3-4

Convener: James Borchers

Time	Speaker	Title
8:00-8:20	Jason Ramage	That Sinking Feeling: Reexamining 100 Years of Land Subsidence in the Greater Houston Area, Texas, based on Multiple Measurement Type
8:20-8:40	John Ellis	The GULF 2023 Model and Ensemble: Modeling Advances and Preliminary Results for the Gulf Coast Aquifer System
8:40-9:00	Yi Liu	Land Subsidence Due to Creep of the Gulf Coast Aquifer System in the Houston-Galveston Region
9:00-9:20	Meng Wei	Subsidence in Coastal Cities Throughout the World Observed by InSAR
9:20-9:40	Xin Zhou	Land Subsidence contributions to Relative Sea Level Rise at Tide Gauge Washington, D.C.
9:40-10:00	Joseph Hughes	Simulating Aquifer-System Deformation in Response to Groundwater-Level Changes in Unconfined Conditions with MODFLOW 6
10:20-10:40	Steven Springhorn	Overview of California Dept. of Water Resources Statewide Subsidence Monitoring Efforts
10:40-11:00	Holly Nichols	California Aqueduct Subsidence Program
11:00-11:20	Chad Carlson	Exploration Drilling and Geomorphic Mapping Along the California Aqueduct for the California Aqueduct Subsidence Program
11:20-11:40	Donald Vasco	Using InSAR and GRACE Satellite Data to Monitor Hydrological Variations within Tulare Basin, CA (Presented by Tom Farr)

11:40-12:00 David Hibbard Abandoned Coal Mine Mitigation in High Pressure Artesian Conditions

Technical Session #15: Dams and Levees Part III

Sponsored by Schnabel Engineering

Room: Melrose 4

Conveners: Ellen Engberg and Hawkins Gagnon

Time	Speaker	Title
8:00-8:40	Scott Walker	Boone Dam Part 3: Mitigation of Internal Erosion Failure Modes through a Karst Foundation
8:40-9:00	Joshua Shinpaugh	A Systematic Approach to Address Risk Uncertainty in a Karst Environment
9:00-9:20	Todd Loar	Abutment Rock Erosion Analysis Due to Overtopping – Risk Assessment for Bull Shoals Dam, Arkansas
9:20-9:40	Hawkins Gagnon	Case History of Swinging Bridge Dam – Lessons Learned in Dam Design, Internal Erosion, Rehabilitation, Instrumentation and Monitoring
9:40-10:00	Thomas Terry	Status of the USACE Drilling Program Plans (DPP) Reviews
10:20-10:40	Matthew Huebner	Development of Deep Seismic Velocity Profiles for TVA Dams: Data Compilation, Facies Analysis, and Depth Correction for Shear Wave Velocities
10:40-11:00	Casey Smith	Erodibility Studies Performed at the Don Pedro Dam Emergency Spillway
11:00-11:20	Michael George	Application of the Block Theory Rock Erodibility Method to Evaluate Scour Potential and Risk at the Don Pedro Dam Emergency Spillway
11:20-11:40	Kevin Richards	Assessment of Breach and Consequences for an Unlined Emergency Spillway
11:40-12:00	Evan Lindenbach	Causes of Voids Behind Spillways, Conduits, Canals, Tunnels, and Siphons

Technical Session #16: Landslides Part III

Sponsored by ConeTec

Room: Sunset 2

Moderator: David Korte

Time	Speaker	Title
8:00-8:20	William Gates	Practical Estimation of Friction Angles for Slope Stability Analysis
8:20-8:40	David Wilshaw	Assessment of the Efficacy of Deep Two-Component Polymer Injection in Soil and Weak Rocks
8:40-9:00	Nikhil Prakash	Fatalities from Debris Flow: Is the Societal Risk Higher than Landslides?
9:00-9:20	Cole Rosenbaum	Quick Response to a Sensitive Situation: A Case Study of a Pipeline Operator's Response to a Sensitive Clay Landslide
9:20-9:40	Charlie Wildman	
9:40-10:00	Shant Minas	"Everything but the Kitchen Sink": A Multidimensional Geotechnical, Geologic and Environmental Investigation for a Proposed Manufacturing and Office Facility on a Complicated Brownfield Site, Los Angeles, California

Technical Session #17: Get A Job and Make it Your Own Student and Young Professional Session

Room: Sunset 2

10:20am-12:00pm Gregory Hempen

FRIDAY, SEPTEMBER 16 – AFTERNOON

Technical Session #18: Geologic and Seismic Hazards Part II

Sponsored by Geosyntec

Room: Melrose 3

Moderators: Gerry Stirewalt and Kelley Shaw

Time	Speaker	Title
1:00-1:20	Gerry Stirewalt	Evaluating Geologic and Seismic Hazards for Plant Vogtle Nuclear Units 3 and 4, Burke County, Georgia, at the U.S. NRC
1:20-1:40	Lloyd West	Washington State School Seismic Safety Project: Geologic and Structural Engineering Assessments of 561 School Buildings
1:40-2:00	Jeffrey Keaton	February 2019 Alluvial Fan Flood Characteristics Inferred from Available Information, Central Riverside County, CA
2:00-2:20	James Arthers	Geotechnical Design of Permafrost and Wetland Mitigation for Colorado State Highway 5 (Mt. Evans Road)
2:20-2:40	Gary Luce	Update to the Carson City and New Empire Quaternary Fault Maps 1979-2022

Technical Session #19: Geohazards and Site Characterization

Sponsored by ImpulseRadar USA

Earthquakes, sinkholes, tsunamis, sea level rise, and differing site conditions are all issues that challenge the best of our profession. Share your experiences, adaptations, and solutions for addressing and living with these issues. Tell us the good, the bad, and the ugly; we want to hear it all.

Room: Melrose 4

Moderator: Curt Schmidt

Time	Speaker	Title
1:00-1:20	Stella Finch	Groundwater Plume Delineation, Comparability of FROG-4000 Split-Sample Analyses of Volatile Organic Compounds
1:20-1:40	David Hibbard	ArcGIS for Geohazard Inventory, Analysis, Site Design, and Mitigation
1:40-2:00	Karl Schuler	Risk Assessment Needs for Redeveloping Industrial Property to Residential Use
2:00-2:20	Alexander Greene	Post-Wildfire Geohazard Assessments of Impacted Natural Gas Pipeline Corridors
2:20-2:40	Martin Derby	Geohazard Identification, Monitoring and Mitigation Methods Using Soil Nail Technology for Shorelines and Infrastructure

Technical Session #20: Wild Problems, Unique Solutions, and Lessons Learned

Ever encounter a problem that seems to have no explanation; a problem that seems to redefine everything you know? The Wild Problems, Unique Solutions, and Lessons Learned is the session for you. Tells us about your problems, strategies, and resolutions.

Room: Sunset 3-4

Moderator: Mark Swank

Time	Speaker	Title
1:00-1:20	Evan Lindenbach	Rock Dilatometer Testing: Field Observations and Comparisons to Empirical Correlations
1:20-1:40	Stephen Evans	Facades of Futures Past – Reusing Historic Facades
1:40-2:00	Gary Norris	Modeling the Stress-Strain Curve of Las Vegas Area Caliche
2:00-2:20	Chris Stohr	Scientific and Political Issues Confronting Protection of the Sole-Source Mahomet Aquifer, East-Central Illinois, and Supplementary Civics
2:20-2:40	Chris Stohr	Science in Elected Office: Observations from 5 years in Public Office