



**ASSOCIATION OF STATE DAM SAFETY OFFICIALS
DAM SAFETY 2022 AGENDA
Baltimore Convention Center, Baltimore, MD**

SATURDAY, SEPTEMBER 17

1:00 PM – 5:00 PM
Room #301
Board of Directors Meeting

SUNDAY, SEPTEMBER 18 – Leadership Day

11:00 AM – 5:30 PM
Charles St. Lobby
Registration Open

10:00 AM – 12:00 PM
Room #307
Risk Workshop for State Programs

12:00 PM – 6:00 PM
Room #306
Speaker Preview Room Open

1:00 PM – 3:00 PM
Regional Caucus Meetings
Northeast – Room #302
Southeast – Room #305
Midwest - Room #304
West – Room #301

1:00 PM – 4:00 PM
Room #303
Advisory Committee Meeting

3:30 PM – 5:30 PM
Room #307
Annual Meeting of State Representatives

7:30 PM – 10:00 PM
National Aquarium
Conference Kick-off Event **Additional Registration Required*

MONDAY, SEPTEMBER 19

7:00 AM – 8:00 PM
Room #306
Speaker Preview Room Open

7:00 AM – 5:30 PM
Charles St. Lobby
Registration Open

7:00 AM – 8:30 AM
Ballroom I/II Foyer
Continental Breakfast

7:00 AM – 1:00 PM
Exhibit Hall A/B
Exhibit Hall Set-Up

8:30 AM – 10:00 AM
Ballroom I/II

Opening General Session – 50th Anniversary of the Buffalo Creek Dam Failure

ASDSO Welcome

Charles Thompson, P.E., Dam Safety Bureau, NM Office of the State Engineer

Maryland Welcome

Re-examination of the Failure of Buffalo Creek Dam, West Virginia on February 26, 1972

Keith Ferguson, P.E., D.GE. D.WRE, and Christopher Krivanec, P.E., G.E., HDR

Buffalo Creek Dam Failure of 1972 – Policy Outcomes from the Failure

Jonathan Pittman, Schnabel Engineering

Consequences and Lawsuit from the Buffalo Creek Disaster

Nathaniel Gee, Tennessee Valley Authority

10:00 AM – 10:30 AM
Break

10:30 AM – 5:00 PM
Room #311
Cost of Rehab Task Force Meeting (Closed)

10:30 AM – 12:00 PM
Room #307

Session 1 – Decade Dam Failures Series Part I

Moderator – Dusty Myers, Eagle Creek Renewable Energy

Human and Social Impacts of the Lawn Lake Dam Failure of 1982

Dylan Hoehn and Clint Brown, Engineering Analytics, Inc.; Mark Baker, DamCrest Consulting; and Alan Pearson

50th Anniversary of the 1972 Black Hills Flood and Subsequent Canyon Lake Dam Failure – A Disaster of PMP-level Proportions

Keil Neff, P.E., Ph.D., Stantec Consulting Services, Inc.; Abbas Dorostkar, Ph.D., P.E., Pacific Gas & Electric Company; Greg Richards, P.E., CFM, Gannett Fleming, Inc.; and Lee Mauney, P.E., CFM, HDR

1802 Failure of Puentes II Dam

A. Tom MacDougall and Diego Saldaña Arce, Ph.D., RJH Consultants, Inc.; and Seth Thompson, P.E., Gannett Fleming, Inc.

10:30 AM – 12:00 PM

Room #308

Session 2 – Understanding Seepage

Moderator – Benjamin Webster, Schnabel Engineering

Large Scale Permeameter Tests for Internal Erosion Assessment of Widely Graded Materials in Embankment Dams

Maoxin Li, Ph.D., P.Eng, and Li Yan, P.Eng., Ph.D., BC Hydro; Sasi Sasitharan, P.Eng., Ph.D., and Emily Tham, MSc., P.Eng, Powertech Labs Inc.

Erosion Resistance and the Impact of Water Content

Peter Irely, P.E., and Ted Howard, P.E., Bureau of Reclamation

A Mooseload of Piezometers: Investigation and Remediation of Seepage at Upper Dam

Gillian M. Williams, P.E., and Lee Wooten, P.E., GEI; Chris Karam, P.E., Brookfield Renewable; and Steve Rabasca, P.E., Soil Metrics, LLC

10:30 AM – 12:00 PM

Room #309

Session 3 – What's New in Roller Compacted Concrete

Moderator – Alan Orsi, Pare Corporation

Using Cool New Tools to Reduce Risks at Comanche Dam

Steve Jamieson, P.E., and Christine Mugele, P.E., W.W. Wheeler & Associates, Inc.; David Hibbs, P.E., and Brad Iarossi, P.E. (Retired), US Fish & Wildlife Service; and Jesse Wullenwaber, P.E., Schnabel Engineering

Lessons Learned or Should Have Learned – RCC Design and Construction

Randall P. Bass, Schnabel Engineering

I dare you to knock this off! Physical model testing of crest caps on RCC overlays

Tony L. Wahl and Bryan J. Heiner, P.E., Bureau of Reclamation

10:30 AM – 12:00 PM

Room #310

Session 4 – High-tech Hydrology

Moderator – Benjamin Israel-Devadason, Gannett Fleming, Inc.

Hydrologic vs Hydraulic Rainfall-Runoff Modeling

Michael Horst, Ph.D., P.E., The College of New Jersey

Applying Stochastic Weather Generation and Continuous Hydrologic Simulation for Critical Infrastructure Design

Joe Bellini and Dennis Johnson, Ph.D., Aterra Solutions; and Bill Kappel and Doug Hultstrand, Ph.D., Applied Weather Associates

Application of a 21-year radar rainfall record to assess changing probability of extreme rainfall in the mid-Atlantic region

Andrew J. Miller, UMBC; James A. Smith and Mary Lynn Baeck, Princeton University; and Elijah Claggett, Kyushu University

12:00 PM – 2:00 PM

Ballroom III/IV

Awards Luncheon

2:00 PM – 3:30 PM

Exhibit Hall A/B

Exhibit Hall Opens

2:15 PM – 3:30 PM

Exhibit Hall A/B

Lightning Talks in the Exhibit Hall

3:30 PM – 5:00 PM

Room #307

Session 5 – Warning and Consequences

Moderator – James T. Pawloski, P.E., James T. Pawloski, PE, LLC

Improved Monitoring at Upper Highline Dam to meet Colorado's Early Warning System Program Requirements

Lee Mauney, P.E., CFM, Loring Crowley, P.E., HDR; and Eric Eisinger, P.E, Colorado Parks and Wildlife

Bureau of Indian Affairs Safety of Dams – Early Warning System Challenges and Advancements

Michele Minihane, Katharine Anderson, Kevin Humphreys, and Tim Pauls, Managed Business Solutions (MBS), a Sealaska Company

Estimating Dam Failure Life-Loss Consequences to Motorists, Recreationalists, and Pedestrians for Hazard

Potential Classification of Dams

Chad Krofta, David Jackson, P.E., and Christopher Clopper, P.E., Managed Business Solutions (Contractor to Bureau of Indian Affairs); and Matt Young, P.E., CFM, Bureau of Indian Affairs

3:30 PM – 5:00 PM

Room #308

Session 6 – Improving Inspections

Moderator – Kristin Ray, Hazen and Sawyer

Risk-Based Dam Inspection Guidelines – Montana Learns from the Oroville Dam Incident

Amanda J. Hess, Greg Richards, P.E., CFM, and Patrick Campana, Gannett Fleming, Inc.; and Michele Lemieux, P.E., MT Department of Natural Resources and Conservation

A Lot of Dam Data! Using ESRI's Survey123 and Field Maps Applications To Efficiently Collect Data and Standardize Quarterly Inspection Packages for 30 Dams

Meron Wolde-Tensae, P.E., Hazen and Sawyer; and Brandon K. Harris, P.E., Gwinnett County Government, Department of Water Resources

Together is Better – Complimenting Assessments Utilizing Rope Access and Unmanned Aerial Vehicles Kenny

Dosanjh, Matt Lynch, Eduard Egov, P.E., SPRAT III, and Michael Buga, P.G., C.E.G, SPRAT I, HDR

3:30 PM – 5:00 PM

Room #309

Session 7 – Potpourri Grab N Go

Moderator – John Ritchey, French & Parrello

Articulating Concrete Block (ACB) Design Practice Update (15 Minutes)

Christopher I. Thornton, Colorado State University-Fort Collins; Jim Nadeau, Ferguson Waterworks; Jon Fripp and Karl Visser, USDA – NRCS; and Dennis Zeveney, US Army Corps of Engineers

The Tale of Two Spillways (15 Minutes)

Joseph Bell, James Murphy, and Paul Schweiger, P.E., Gannett Fleming, Inc.; and Constantine Pappas US Fish & Wildlife Service

How Latest CFD and 2-D Modeling Capabilities Support Dam Rehabilitations (15 Minutes)

Ahintha Kandamby, Michelle Bowen, Chamil Perera, and Mathew Lunemann, WSP

Homogeneous vs. Heterogeneous Concrete Considerations in PFMA (15 Minutes)

Amin Hariri, HDR; and Larry Nuss, Nuss Engineering LLC

Cyclic and Static Liquefaction Study for a New Earth Dam in Colorado (15 Minutes)

Todd Street, P.E., and Amin Ghorbanpour, Ph.D., P.E., W. W. Wheeler and Associates, Inc.

Caldor Fire Emergency Repairs (15 Minutes)

Amy Deakyne, GHD, Inc.

3:30 PM – 5:00 PM

Room #310

Session 8 – It's Maryland, Hon

Moderator – Harald Van Aller

Brighton Dam: Working Together to Repair Unanticipated Damage and Deterioration to Tainter Gates

Brad Zelonis, P.E., Kleinschmidt Associates; Richard F Walker, Jr., P.E., Scott Jones, P.E., Ph.D., Robert Pinciotti, P.E., and Eric Wenz, P.E., AECOM; and Claude Modise, P.E., and Karen A. Wright, WSSC Water

Goldilocks and the Three EAPs: Working with EAP Templates and Inundation Mapping Guidelines to Ensure They are "Just Right" for your Dam

Kate Naughton, Jeffery Powers, and Jeremy Hise, Hazen and Sawyer; and Nancy Hausrath, William Luhn, and Kellen Douglas, City of Hagerstown

Historic Ellicott City, Maryland Flooding: Safe and Sound Mitigation Plan

Mark S. Richmond, Howard County Stormwater Management Division

5:00 PM – 6:30 PM

Exhibit Hall A/B

Welcome Reception in the Exhibit Hall

TUESDAY, SEPTEMBER 20

7:00 AM – 8:30 AM

Ballroom A/B Foyer

Breakfast

7:00 AM – 8:00 PM

Room #306

Speaker Preview Room Open

7:30 AM – 5:30 PM

Charles St. Lobby

Registration Open

8:30 AM – 10:00 AM

Ballroom I/II

General Session 2 – Dam Safety 3.0 – Changing Our Paradigm

Federal Lawmakers, Uncommon Dialogue, and FEMA. Reimagining Dam Safety.

10:00 AM – 10:30 AM

Exhibit Hall A/B

Refreshment Break

10:30 AM – 12:00 PM

Room #301

Session 9 – Explaining Environmental Justice

Moderator – Carmen Lepsch, Schnabel Engineering

Mapping Maryland's Inundation Zones

John Roche and William Ashby, MD Department of the Environment

The Justice40 Initiative related to Dams and Flood Protection Infrastructure

Henry Smart, P.E., Jason Beasley, P.E., and Dennis J. Hogan, P.E., AECOM

What should we protect? Consequence Analysis that reflects communities' unique assets and vulnerabilities.

Katherine Sharpe and Kayla Briggs, Gannett Fleming, Inc.

10:30 AM – 12:00 PM

Room #307

Session 10 – ASDSO Resources Making an Impact

Moderator – Kate Naughton, Hazen and Sawyer

ASDSO's Technical Knowledge Base – A New Online Resource for the Dam Safety Industry (30 Minutes)

Greg Richards, Gannett Fleming, Inc.; and Jeremy Franz, CO Division of Water Resources

Debris, Fire, and Ice – Unusual Hydrologic Conditions and their Impact on Dams and Floods (Recent Highlights from DamFailures.org) (60 Minutes)

Greg Richards, P.E., CFM, Gannett Fleming, Inc.; Bill Johnstone, Ph.D., P.E., Spatial Vision Group Inc.; Doug Johnson, P.E., Federal Energy Regulatory Commission; Everett Taylor, P.E., UT Division of Water Rights; John Atkins, P.E., Eagle Creek Renewable Energy; and Nathaniel Gee, P.E., Tennessee Valley Authority

10:30 AM – 12:00 PM

Room #308

Session 11 – Focus on Seismic Issues

Moderator – R. Craig Findlay, Findlay Engineering

Considerations for Subsurface Investigations for Seismic Analysis of Embankment Dams and Levees

Khaled Chowdhury, Ph.D., P.E., G.E., Ethan Dawson, Ph.D., Georgette Hlepas, Ph.D. P.E., Michael Arles, P.G., and Olivia F. Finlay, GIT, US Army Corps of Engineers; Zia Zafir, Ph.D., P.E., G.E., Kleinfelder; and Raymond B. Seed, Ph.D., Professor Emeritus, University of California, Berkley

Framework for Seismic Risk Analysis of Embankment Dams

Glenn J. Rix, Ph.D., P.E., Geosyntec Consultants; and Martin W. McCann, Jr., Jack R. Benjamin and Associates, Inc.

How do you perform a DSHA for a distributed seismicity source?

Christie Hale, Ph.D., Glenn J. Rix, Ph.D., P.E., and E. Onur Tastan, Ph.D., P.E., Geosyntec Consultants

10:30 AM – 12:00 PM

Room #309

Session 12 – Small But Dangerous. A Programmatic View of Low Head Dams.

Moderator – Brian McCormick, Colorado Springs Utilities

A Tool to Identify Dangerous Conditions at Low-Head Dams

Tony L. Wahl and Connie D. Svoboda, P.E., Bureau of Reclamation

Machine Learning for locating low head dams

Salvador Augusto Vinay Mollinedo and Rollin H. Hotchkiss, Brigham Young University

Stream Slope Map to Predict Drowning Potential at Low-head Dams

Jason Poff and Rollin Hotchkiss, Ph.D., P.E., D.WRE, Brigham Young University

10:30 AM – 12:00 PM

Room #310

Session 13 – Spillway Hydraulics

Moderator – Dylan Hoehn, Engineering Analytics

Case Study: 2D and 3D/CFD Modeling along Stepped-Chute Spillways with Stilling Basin and Tailwater Weir

Joe Bellini, Dennis Johnson, Ph.D., and Tom Saldutti, Aterra Solutions, LLC

Is that a hydraulic jump basin or a roller bucket? Physical modeling of the Gross Dam Spillway Stilling Basin

Greg Glunz, P.E., and Frank Lan, Ph.D., P.E., AECOM; Chris Thornton, Ph.D., P.E., Colorado State University; Felipe Garcia, P.E., Stantec Consulting Services, Inc.; and Casey Dick, P.E., Denver Water

To step or not to step, that is the question! – Using SpillwayPro to evaluate increased discharge or design head

Bryan J. Heiner and Tony L. Wahl, Bureau of Reclamation

12:00 PM – 1:30 PM

Exhibit Hall A/B

Lunch in the Exhibit Hall

12:00 PM – 1:30 PM

Room #304

Reclamation IRP Meeting (Closed Meeting)

12:00 PM – 1:30 PM

Offsite

Journal of Dam Safety Committee Meeting

1:30 PM – 3:00 PM

Room #301

Session 14 – Decade Dam Failures Series Part II

Moderator – Seth Thompson, Gannett Fleming, Inc.

Christmas Catastrophe: Crisis Averted At Adams Lake Dam (15 Minutes)

Robert C. Hatton, P.E., and Jon Keeling, P.E., CFM, Stantec Consulting Services, Inc.

Edgewick Railroad Fill Failure, Washington State, 1932 (15 Minutes)

Douglas L. Johnson, P.E., Federal Energy Regulatory Commission

1952 Failure of Frenchman Creek Dam (15 Minutes)

Greg Paxson, P.E., D.WRE, Schnabel Engineering; and Chadrick Hill, MT DNRC Dam Safety Program

10th Anniversary of the Percy Quinn Dam Incident – Two Slides, Two States, One Big Mess! (15 Minutes)

Dusty Myers and Johnathon Atkins, P.E., Eagle Creek Renewable Energy

1912 Collapse of the Nashville City Reservoir: From Failure to Fortress (15 Minutes)

Jonathan Pittman, P.E., Schnabel Engineering; and Dawning Wu, EIT, HDR

1992 Fairfax Lake Dam Piping Incident and Repair (15 Minutes)

Natalie Orbesen, Zachary Hollandsworth, P.E., and Cecil Bearden, P.E., Oklahoma Water Resources Board

1:30 PM – 3:00 PM

Room #307

Session 15 – Dam Removal Part I

Moderator – Nils Anestad, Ramboll

Multi-benefit Dam Removal Projects for Dam Safety—Dam Removal as a Dam Safety Solution

Katherine Schmidt, Serena McClain, Jessie Thomas-Blate, and Brian Graber, American Rivers

Happy Hour is here again! – Long Draught Branch Dam Removal and Stream Restoration

Justin Lennon, Kyle Spendiff, and Michael Coco, P.E., WSP; and Dana Havlik, P.E., MD State Highway Administration

Federal Actors in Dam Removal Policy: Legal and Bureaucratic Influences in the Decommissioning of Powered and Non-Powered Dams in the United States

Arianna Drechsler, Marquette University

1:30 PM – 3:00 PM

Room #308

Session 16 – State Perspectives on Portfolio Risk Analysis

Moderator – Amanda Lopez, AECOM

Evaluating and Prioritizing Risk for a Portfolio of Dam Assets

Nicolette Schluter, EIT, Jeff Blass, P.E., and G. Michael McIntyre, P.E., AECOM; Spyridon Papadimas, P.E., MD Department of General Services; Perry Otwell, P.E., MD Department of Natural Resources; and John Roche, P.E., MD Department of the Environment

Where to Focus: Benefits of a Portfolio-Level Risk Analysis

Aaron J. Fricke, P.E., Christopher B. Burke Engineering, LLC; and Moumita Mukherjee, Ph.D., P.E., IN Department of Natural Resources

Integrating Risk into the NC State Dam Safety Program

Tony Grubbs, Freese & Nichols; and William E. Toby Vinson, NC Department of Environmental Quality

1:30 PM – 3:00 PM

Room #309

Session 17 – Innovations In Monitoring Methods

Moderator – Elizabeth Landowski, Gannett Fleming, Inc.

Improvements in Geophysical Investigations of Earth Fill Dams

Ahmed Ismail, Zonaed Szal, and Oluseun Sanuade, Oklahoma State University

Acoustic Methods to Detect Anomalies in an Embankment Dam – A Comparison With Other Geophysical Methods

Sam Johansson, Ph.D., HydroResearch AB; Ingvar Ekström, M.Sc., Sweco AB; and Mats Persson, Vattenfall Vattenkraft, M.Sc.

Use of InSAR to Support Dam Health Monitoring Programs

Cyrus D. Garner, Ph.D., P.E., Jordan Keeney, P.E., and Mike Davis, P.Eng., Stantec Consulting Services, Inc.

1:30 PM – 3:00 PM

Room #310

Session 18 – Modifying Low Head Dams

Moderator – Jesse Pope, Stantec Consulting Services, Inc.

Dam Good Fishing without the Snags – Fish Passage at a Low Head Dam

Carmen Lepsch and John Harrison, P.E., Schnabel Engineering; and Brian Crookston, Ph.D., P.E., Utah State University

Willow River Dam - Innovative Conversion to Compound Rock Arch Rapids

Jessica Olson, P.E., and Peter Hinck, P.E., Barr; and Crystal Payment, MN Department of Natural Resources

Simple Design of a Safer Low Head Dam

Paul A. Cocca, P.E., CFM, and Daniel A. Bennett, US Army Corps of Engineers; and Marta Lopez-Egea, Golder Associates

3:00 PM – 3:30 PM

Exhibit Hall A/B

Break in the Exhibit Hall

3:30 PM – 5:00 PM

Room #301

Session 19 – Spotlight on State Programs

Moderator – Cory Miyamoto, CA Department of Water Resources

Inundation Studies and Downstream Hazard Determination Guidance for Ohio Dams

Matt Marquis, P.E., OH Department of Natural Resources

Use of Rapid Categorization of Assets Tool (RCAT) for Gap Analysis of Physical Security Measures for Flood Management Facilities in California

Rajat Saha, John J. Rizzardo, P.E., Jon Ericson, P.E., and John Paasch, P.E., M. Eng., CA Department of Water Resources; and James L. Strife, CPP, PCI, CHPA, Gannett Fleming, Inc.

Trampas Canyon Dam Enlargement

Rick Draeger, P.E., and Ashley Gobel, P.E., CA Department of Water Resources, Division of Safety of Dams

3:30 PM – 5:00 PM

Room #307

Session 20 – Dam Removal Part II

Moderator – Mark Di Lullo, Ramboll

Assessing the Pre-Dam Removal Ecological Functions of Blackwater Creek, 90 Years after the Construction of College Lake Dam: A High Hazard Dam

Brandon Alderman, AECOM; and Erin Hawkins, City of Lynchburg

Dam Removal using a Pilot Channel for Sediment Management

Maren Hancock, P.E., Jonathon Kusa, P.E., and Marty Melchior, Inter-Fluve, Inc.; Suzannah Deneau, P.E., Wightman and Associates; and Jeff Dunlap, City of Niles, Michigan

Breaching and Environmental Impacts of Woodlands Lake Dam a High Hazard Dam

Ivan Gomez and Beth Ann Smith, GHD; Nadia Savage, Westchester County Department of Public Works and Transportation; and David DeLucia, Westchester County Department of Parks, Recreation and Conservation

3:30 PM – 5:00 PM

Room #308

Session 21 – Rehabilitation Methods and Materials

Moderator – Gillian Williams, GEI

Researching Grout Mix Performance in the Presence of Low Velocity Crossflow Using Large Scale Laboratory Testing for Logan Martin Dam

Joshua Anderson, Alden Research Laboratory; and Eric Manning, P.E., Southern Company

Performance of a Test Levee Slope using Bio-Engineered Stabilization on High Plasticity Clay

Amber Spears, P.E., Avipriyo Chakraborty, Omer Alzaghoul, Mohammad Sadik Khan, Ph.D., P.E., and Robert W. Whalin, Ph.D., P.E., Jackson State University

Performance of the Boone Dam during Reservoir Filling following Remediation

John Barrett, Geosyntec Consultants; and Chris Saucier, P.E., Tennessee Valley Authority

3:30 PM – 5:00 PM

Room #309

Session 22 – Developing Your Risk Toolbox

Moderator – Scott Anderson, GENTERRA Consultants

Leveraging PFMA to Address Unexpected Foundation Conditions during Active Rehabilitation on a Spillway Chute
Andrea Jacobs, P.E., Scott Jones, P.E., Ph.D., and David Bianco, AECOM; and Chad Knutti, P.E., Brookfield Renewable

Risk Informed Decision Making for Construction, Repair, and Maintenance Projects

Lewis Rounds, P.E., Ballard Marine Construction

Potential Failure Mode Screening Analyses

Martin W. McCann, Ph.D., Jack R. Benjamin and Associates; Glenn J. Rix, Geosyntec Consultants; and Thomas Westover, Cornforth Consultants, Inc.,

3:30 PM – 5:00 PM

Room #310

Session 23 – Advancements In Inundation Mapping

Moderator – Gregory Glunz, AECOM

Painless Mapping Using New Mexico OSE Dam Inundation Mapbook Processing Toolset

Hui-Ming (Max) Shih, Ph.D., P.E., CFM, Allison Wagner, Joseph Machala, P.E., CDM Smith; and Charles N. Thompson, P.E., and David Heber, P.E., NM Office of the State Engineer

The Use of Dam Failure Inundation Maps in Exercises

Richard Kusmierczyk, P.E., Tennessee Valley Authority

The Domino Effect – A Look Into Cascading Dam Failures

Luke Trumble, MI Department of the Environment, Great Lakes, and Energy; Bill Kussman, P.E., Hatch; Mark Forest, P.E., CFM, and Lee Mauney, P.E., CFM, HDR; and Mark Baker, P.E., DamCrest Consulting, LLC

5:00 PM – 6:30 PM

Exhibit Hall A/B

Reception in the Exhibit Hall

5:00 PM – 6:30 PM

Room #307

USACE Town Hall

WEDNESDAY, SEPTEMBER 21

7:00 AM – 3:30 PM

Room #306

Speaker Preview Room Open

7:30 AM – 3:30 PM

Charles St. Lobby

Registration Open

7:00 AM – 8:30 AM

Breakfast

8:30 AM – 10:00 AM

Room #307

Session 24 – Levee Management

Moderator – William Rochford, USACE

Reverse Water Loadings for Levee Systems – A Lesson from Hurricane Ida

Will McRae, Noah Vroman, P.E., and Jennifer Stephens, P.G., US Army Corps of Engineers

Common Levee O&M Pitfalls – Keeping Sponsors Above Water

Vicki Twerdochlib, P.E., CFM, and Brice Stafne, P.E., HDR; and George Parizek, P.E., City of Omaha, Nebraska

Inspecting Levees within Multiple Jurisdictions (15 Minutes)

Randy Bushey, Jacobs

The Benefits of Active Levee Sponsor Engagement in the Inspection Process (15 Minutes)

Kimberly Lukas, P.E., CPESC and Daniel Teak, P.E., HDR

8:30 AM – 10:00 AM

Room #308

Session 25 – Geo Tech Case Studies

Moderator – Nason McCullough, Jacobs

Stiles Reservoir Dam – No More Patches

J. Matthew Bellisle, P.E., and David R. Caouette, P.E., Pare Corporation

Anchoring Down in the Peach State

Nate Witter, P.E., Nicholson Construction Company; and Nick Ciomei, P.E., Kleinschmidt Group

Run-Of-River Dam Construction: A Team Approach to Navigating Changing Waters (15 Minutes)

James Guistina, Bergmann; and Caroline Wheadon, Labella Associates

Leon Hurse Dam – Characterization and Construction Approval of a Five Million Cubic Yard Borrow Area (15 Minutes)

Mark Ickert and Russ Springer, P.E., Freese and Nichols, Inc.; and Adam McKnight, Upper Trinity Regional Water District

8:30 AM – 10:00 AM

Room #309

Session 26 – Assessing Spillway Conditions

Moderator – Kevin Ruswick, Schnabel Engineering

Flow Rates Through Joints and Cracks in Spillway Chutes

Tony L. Wahl and Bryan J. Heiner, P.E., Bureau of Reclamation

A New Cloud-Based Tool For Assessment Of Rock Scour Incidents During Floods At High-Head Dams

Erik F.R. Bollaert, C. Eng., Ph.D., AquaVision Engineering LLC

Condition assessment of an urban spillway designed and built in three phases spanning 45 years

Jeffrey R. Keaton, Ph.D., P.E., P.G., Wood; and Stewart S. Vaghti, P.E., Gannett Fleming, Inc.

8:30 AM – 10:00 AM

Room #310

Session 27 – Rainfall: High and Low Frequencies

Moderator – Jeff Blass, AECOM

High-Frequency Rainfall-Runoff Modeling for Dam Safety Decision-Making

Brent Zundel, P.E., CFM, and Anthony Moritz, EI, MT Department of Natural Resources and Conservation

Quantification of Uncertainty in Precipitation Frequency Estimates Considering Climate Change

Azin Al Kajbaf, Michelle Bensi, Ph.D., and Kaye L. Brubaker, Ph.D., University of Maryland

State of Statewide PMP – Where We've Been and What's Next

Bill Kappel, Applied Weather Associates

8:30 AM – 10:00 AM

Room #301

Public Safety at Dams Committee Meeting

9:00 AM – 12:00 PM

Room #302

Peer Review Committee Meeting

10:00 AM – 10:30 AM

Exhibit Hall A/B

Refreshment Break

10:30 AM – 12:00 PM

Room #307

Session 28 – Updates On The National Levee Safety Program

Moderator – Elena Sossenkina, HDR

The National Levee Safety Program: Do We Need a Standard for all Levees in the Nation?

Phoebe Percell, Tammy Conforti, P.E., and Jason Needham, US Army Corps of Engineers

10:30 AM – 12:00 PM

Room #308

Session 29 – Near Miss

Moderator – Zachary Mickel, Geosyntec Consultants

Emergency Response at a High Hazard Dam Lasting Weeks

Mark W. Killgore, VA Department of Conservation and Recreation

Spillways, Sinkholes, and Slope Failures: Quick Thinking Saves Two Dams

Stephen Spink, P.E., and Timothy Blair, P.E., Weston & Sampson Engineers, Inc.

The 50-Year Anniversary of the Kingsley Dam Wave Erosion Incident

Tim Gokie, P.E., NE Department of Natural Resources; and Michael A. Drain, P.E., The Central Nebraska Public Power and Irrigation District

10:30 AM – 12:00 PM

Room #309

Session 30 – Advanced Geo Tech

Moderator – Joseph Kula, Geosyntec Consultants

Investigating and Addressing Seepage and Slope Stability Issues at Oroville Dam

Leslie F. Harder, Ph.D., P.E., G.E., Mark Stanley, P.E., G.E., Christopher Krivanec, P.E., G.E., and Sagar Raj Satyal, HDR; and Timothy Wehling, P.E., Christina Kashiwada, P.E., Daniel Cimini, P.E., Ashley Cousin, P.E., Ryan Abernathy, P.E., and David Sarkisian, P.E., CEG, CA Department of Water Resources

Estimating Maximum and Minimum Void Ratio from Index Parameters

Alex Pires-Sturm, Ph.D., P.E., and Robert Jaeger, Ph.D., P.E., CA Department of Water Resources, Division of Safety of Dams; and Jason DeJong, Ph.D., University of California, Davis

Experimental Overview of Static Liquefaction and Tips to Plan a Successful Laboratory Program

Amin Ghorbanpour, W. W. Wheeler and Associates

10:30 AM – 12:00 PM

Room #310

Session 31 – CFD In Practice

Moderator – Jeffery Powers, Hazen

To the Tune of a Piano-Key: Analysis of Alternatives for Curtis Dam and Hydraulic Design of a Piano-Key Spillway

Seth Thompson, Chad Hoover, P.E., and Paul Schweiger, P.E., Gannett Fleming, Inc.; Anthony Nokovich, P.E., Pennsylvania American Water Company; and Brian Crookston, Ph.D., P.E., Utah State University

Designing or Evaluating a Spillway? Know the Controllers of the Control Section!

Benjamin Israel-Devadason and Paul Schweiger, Gannett Fleming, Inc.

A Dive into DeHart Dam: How PMP Studies and CFD Modeling Can Reshape a Dam's Rehabilitation Alternatives
Wesley Hollenbach, P.E., CFM, Casey Robertson, Jeff Blass, P.E., and Scott Jones, P.E., Ph.D., AECOM

10:30 AM – 12:00 PM

Room #301

Committee On Education Outreach Meeting

12:00 PM – 1:30 PM

Exhibit Hall A/B

Lunch with the Exhibitors and Door Prize Drawings

12:00 PM – 1:30 PM

Room #303

ASDSO Board of Director and ICODS Luncheon (Closed)

1:30 PM – 6:00 PM

Exhibit Hall A/B

Exhibitor Move Out

1:30 PM – 3:00 PM

Room #307

Session 32 – The Best Of The Rest

Moderator – Chad Davis, HDR

Dam and Waterway Construction in the early 1900's – A Photographic Journey Through Time

Todd Mueller, P.E., Bergmann

Picture This: A 3-D Subsurface Model to Support Dam Design

Kyle Blakley, P.E., David Hayson, P.E., and Michael Bartosek, Stantec Consulting Services, Inc.

Caught Between the Ocean and a Watershed, Designing Climate Change Adaptations for Two Coastal Water Supply Dams in Rhode Island (15 Minutes)

Andrea Judge, P.E., Fuss & O'Neill, Inc.; Joseph Famely, Woods Hole Group; and Robert Schultz, Jr., City of Newport, Rhode Island

Dam, Analysis Modernization of Tools, Applications, Guidance, and Standardization (DAM-TAGS) Project (15 Minutes)

Sherry L. Hunt, Jarrett Wise, Michael Buser, and Kade Shelton, USDA – Agricultural Research Service Hydraulic Engineering Research Unit

1:30 PM – 3:00 PM

Room #308

Session 33 – Federal Funding and Communications Initiatives

Moderator – Lucas A. Trumble, P.E., MI Department of the Environment, Great Lakes, and Energy

Conceptual Dam Safety Improvement Program Financed through Corps Water Infrastructure Financing Program

Robert Beduhn, Jeremy Cook, Derek Gardels, and Cris Parker, HDR; and Aaron Snyder and Nathan Campbell, PMP, US Army Corps of Engineers

Shifting the Focus to Proactive Community Investments through Collaborative Technical Assistance: A Western Maryland Case Study

Scott Bass, MD Department of the Environment; Preston Wilson, Federal Emergency Management Agency, National Dam Safety Program; and Rosemarie Bradley, Ph.D., Federal Emergency Management Agency, National Integration Center

Case Study: A Small Hydroelectric Dam Navigating FEMA's Hazard Mitigation Program

Emily Campbell, John Barrett, P.E., and Matt Bardol, Geosyntec Consultants

1:30 PM – 3:00 PM

Room #309

Session 34 – Challenges With Cutoff Wall Construction

Moderator – Ken Catino, GHD

North Reservoir Dam Improvements – Rehabilitation of a High-Hazard Dam at Full Pool

Pete Nix, Tetra Tech

Design and Construction Challenges with a Multi-Level Seepage Cutoff Barrier

David Paiko, P.E., Jacobs Engineering; and Kevin Aubry, P.E., Terracon Consultants, Inc.

East Branch Dam: Lessons Learned during Cutoff Wall Verification Drilling

Sarah J. Missenda and Audrey Wingate, US Army Corps of Engineers

1:30 PM – 3:00 PM

Room #310

Session 35 – Advancements In Inundation Mapping, Part II

Moderator – Jonathan Keeling, Stantec Consulting Services, Inc.

Probabilistic Dam Breach Analysis for Pennsylvania's Largest Dam Breach Inundation Limits

Joseph Kudritz, Ed Kaminski, P.E., and Brian Afek, P.E., Michael Baker International

Safe Zone Determination under the Dam Failure Condition

John Dong, Nicolas Von Gersdorff, Matt Muto, Jeremy A Yager, and Douglas Raigosa, Southern California Edison; and Ziyad Duron, Harvey Mudd College

Replicating of Brumadinho Tailings Dam Failure: Using a Two-Phase Flow Model

Noemi Gonzalez Ramirez, Karen O'Brien, and Jimmy S. O'Brien, FLO-2D Software / Riada Engineering

1:30 PM – 3:00 PM

Room #301

Dam Failures and Incidents Committee Meeting

3:00 PM – 3:30 PM

Refreshment Break

3:30 PM – 5:00 PM

Room #307

Session 36 – Decade Dam Failures Series Part III

Moderator – Clint Brown, Engineering Analytics

Thomson Canal Embankment Failure of 2012

Eric Gross and Paul Kokoszka, Federal Energy Regulatory Commission, Federal Energy Regulatory Commission

Impacts of a Slow-Moving Hurricane: Agnes and the Drove of Dam and Levee Incidents

Paul Risher, HDR

Santa Clara Dam: The hole problem

Everett Taylor, P.E., Utah Division of Water Rights

3:30 PM – 5:00 PM

Room #308

Session 37 – Managing Rules And Regulations For Real Results

Moderator – William McKercher, MS Department of Environmental Quality

Is Enforcement Possible? An Ohio Success Story

Mia Kannik, Dena Barnhouse, and Cindy Frazzini, OH Department of Natural Resources

WAIT!, I own a dam? And Regulatory is Filing a Lawsuit?!

James Guistina, Bergmann

Incorporating Dam Inundation Risk within a FEMA RiskMAP Project: A Pilot Study

Tiffany Coleman, STARR II / Stantec Consulting Services, Inc.; and Regina Majercak, Federal Emergency Management Agency

3:30 PM – 5:00 PM

Room #309

Session 38 – Top Tips And Tools In Construction Management

Moderator – Mark Rothbauer, Nicholson Construction

Leveraging Construction Manager at Risk for Efficient Dam Safety Portfolio Delivery

Chad Davis, HDR; and Eric Shafer, P.E., Jacob Bench, P.E., and James Hilovsky, P.E., OH Department of Natural Resources

Reducing Risk, Schedule and Cost Via Construction Manager at Risk Delivery - Hargus Lake Dam

Pete Logsdon, P.E., and Chad Davis, P.E., HDR; Eric Shafer, P.E., OH Department of Natural Resources; Brian Toombs, P.E., Schnabel Engineering; and Michael Garver, The Ruhlin Company

Case Studies in Construction Quality Control / Quality Assurance Methods for Seepage Cutoff Walls

Joseph Kula, P.E., Conrad Ginther, P.E., Jamey Rosen, P.Geo., John Barrett, P.E., and Fred Chandler, P.G., Geosyntec Consultants; Veronica Barredo, P.E., Tennessee Valley Authority; and Hector Davila, Bauer Foundation Corp.

THURSDAY, SEPTEMBER 22

7:30 AM – 8:00 AM

Field Trips Check-in

8:00 AM

Field Trips Depart – TBA

8:00 AM – 8:30 AM

Workshops Check-in

8:30 AM – 12:30 PM

Room #303

Two-Phase Flow Tailings Dam Breach Modeling

Karen O'Brien and Noemi Gonzalez Ramirez, and Jimmy S. O'Brien, FLO-2D Software/Riada Engineering

8:30 AM – 5:00 PM

Room #301

Write Right

John Philip Bachner, Bachner Communications, Inc.

Poster Lightning Talks

Project Execution Risk vs Infrastructure Performance Risk: A Critical Distinction for Dam Safety

Derek Morley, Geosyntec Consultants; and Brian Hubel, P.E., G.E., US Army Corps of Engineers

Potential Pitfalls to Alternative Selection

Jason Boomer, P.E., and Jennifer Williams, P.E., AECOM; and Brian Francis, P.E., US Army Corps of Engineers

Considerations for Addressing Floodplain Management for Dam Rehabilitation or Removal Projects

Edward G. Beadenkopf and Diana Castro, P.E., CFM, Atkins North America

Dam Resilience Decision Support Toolbox

Jenn Richkus, Sean Cavanaugh, Leah Balkin, Conor Lewellyn, Ph.D., P.E., and Ethan Robinson, The MITRE Corporation

Remote Underwater Surveys and Inspections: Exceeding Regulatory Requirements for Safety of Water Power Projects

Dusty Myers, Eagle Creek Renewable Energy; and Kristin Rotella, ASI Marine

Gate Structures – Snatched from Failure: How Many Ways Can a Radial Gate See Single Sided Hosting?

Travis Ford, P.E., and Janine Ninive, EIT, HDR

Dam Breach Modeling and Fly Fishing Along the Trail of Lewis And Clark

Kevin Ruswick, Schnabel Engineering; and Dustin Kaste, P.E., North Western Energy

Potential Applications of Forecast Informed Reservoir Operations (FIRO) to Enhance Integrated Water Management

Roger Putty and Michael Cornelius, P.G., GEI

Uncertainty in Predicting Emergency Action Plans from Dam Failure

Al Soud, Wood

Re-evaluating Dam Spillway Design Using Current Data and Methods

Mark Schwartz, P.E., Emrah Karakullukcu, and John Osterle, P.E., RIZZO

One Size Does Not Fit All – Evaluating Dam Breach Parameters for Small Urban Distribution Reservoirs

Jason Zhou and Priyanka K. Jain, P.E., East Bay Municipal Utility District

Dirty Job: Court Street Dam Gate Chamber Cleaning

Jeff Blass, P.E., G. Michael McIntyre, P.E., and Richard Walker, P.E., AECOM; and Roger Gural, PMP, New York Power Authority

Modification of Howard Prairie Dam

Brandt Demars, Bureau of Reclamation

Leveraging Advanced Digital Modeling and AI Analytics for Arch Dam and Concrete Spillway Condition Assessments

Ryan Coppersmith, Niricson Software, Inc.

Seepage-induced upgrading on drainage system in Miraflores Dam

Johnatan Ramos-Rivera, Camilo A. Cardona Villa, and Daniel E Toscano Patino, Empresas Públicas de Medellín (EPM)

Watershed Planning for the Rehabilitation of Beaver Creek 1: a Concerted Effort

J Ryan Collins, Schnabel Engineering; Mathew Lyons, P.E., USDA; and Victoria Fort, P.E., Rivanna Water and Sewer Authority

Flood detention reservoirs: A new wave of dam construction in the United Kingdom

Alan J. Brown, C.Eng, and Andy Courtnadge, C.Eng, Jacobs

Assessment Displacement Of Capanda Dam Under Hydrostatic Loads Using Diana Finite Element Model

Arlon Andre, Hermenegildo Dala, and Mariano Peliganga, LESRA

Larger than Maryland: Site-Specific PMP & PMF for a 14,000-Square Mile River Basin

Patrick Miles, Freese and Nichols, Inc.; and Bill Kappel Applied Weather Associates

Applicability of the Bayesian Dynamic Linear Model Method In Dam Behaviour Analysis and Comparison With the HST Method

Patrice Côté, Vincent Roy, Benjamin Miquel, and Arnaud Meynadier, Hydro-Québec

Recent Updates of the Web-based Decision Support System for Water Infrastructural Security (DSS-WISE Lite)
Mohammad Al-Hamdan and Marcus McGrath – National Center for Computational Hydroscience and Engineering (NCCHE), University of Mississippi; and Paul Smith, Nuttita Pophet

Flood Awareness Presentations for Seniors, Northern Virginia, 2015-2019
Charles E. Karpowicz, Water Resources Management of Virginia

Alternative Delivery Methods – Lyman Lake Spillway
Nick Sullivan, Phillips & Jordan, Inc.

Tailings Dam Safety Concerns and Lessons Learned after Brumadinho Dam Failure
Cagri Cinkilic, Juan Gutierrez, P.E., and Paul C. Rizzo, P.E., RIZZO International, Inc.