

TECHNICAL AGENDA

SATURDAY, SEPTEMBER 7

12:00 pm – 5:00 pm ASDSO Board of Directors Meeting
Bristol/Kent Room: Omni Hotel

SUNDAY, SEPTEMBER 8

7:30 am – 1:30 pm Golf Outing

8:00 am – 8:00 pm Speaker Preview Room Open
Room 558

8:00 am – 6:00 pm Registration Open
Exhibit CD Prefunction

11:30 am – 1:30 pm ADCOM Meeting
Room 553B

1:30 pm – 6:00 pm Field Trip to Alden Research Laboratory
Participants to meet bus at Sabine St. Entrance

2:00 pm – 6:30 pm Leadership Day for State Officials

2:00 pm – 4:00 pm Regional Caucus Meetings

Room 556A Midwest Regional Caucus

Room 556B Southeast Regional Caucus

Room 555A Northeast Regional Caucus

Room 555B West Regional Caucus

4:00 pm – 4:30 pm Refreshment Break
West Hallway

4:30 pm – 6:30 pm Annual Business Meeting and Special Presentation:
Room 554 *Effectively Responding to Failures with the Dam Failure Investigation
Guideline*

7:00 pm – 9:00 pm Constitution & Bylaws Committee Meeting
Room 553B

MONDAY, SEPTEMBER 9

7:00 am – 8:00 pm Speaker Preview Room Open
Room 558

7:00 am – 6:00 pm Registration Open
Exhibit CD Prefunction

7:30 am – 8:30 am Continental Breakfast
5th Floor Ballroom Foyer

8:30 am – 10:00 am **Opening General Session**
Ballroom A

Welcome to Rhode Island
Speaker TBA

ASDSO Year in Review

Jason Campbell, P.E., ASDSO President, Illinois Department of Natural Resources; D. Thomas Woosley, ASDSO President-Elect, GA Department of Natural Resources; and Lori C. Spragens, ASDSO Executive Director

Washington Update

Invited: Senator Sheldon Whitehouse of Rhode Island

Keynote: Wishful Budgeting – Denial and Dangerous Dams

David Cay Johnston, Distinguished Visiting Lecturer, Syracuse University College of Law and Whitman School of Management; investigative journalist and author, and winner of the 2001 Pulitzer Prize for Beat Reporting

8:45 am – 3:30 pm Guest Tour to Newport, Rhode Island
Participants to meet bus at Sabine St. Entrance

10:00 am – 5:00 pm Exhibitor Move-In and Poster Forum Setup
Exhibit Hall CD and 5th Floor Foyer

10:00 am – 5:00 pm ASDSO Resource Center Open
5th Floor Rotunda

10:00 am – 10:30 am Refreshment Break
5th Floor Ballroom Foyer

10:30 am – 12:00 pm **Concurrent Session: Levee Safety - New Policies and Guidelines**
Ballroom A Moderated by Stephen W. Verigin, P.E., GEI Consultants, Inc.

Flood Protection Structure Accreditation Task Force

Geoffrey Henggeler, Levee Safety Program Manager, U.S. Army Corps of Engineers

Update on WRDA

Susan Gilson, Executive Director, National Association of Flood and Stormwater Management Agencies

Publication of the International Levee Handbook

Michael K. Sharp, PhD, P.E., Technical Director, US Army Corps of Engineers, Engineer Research & Development Center

10:30 am – 12:00 pm
Ballroom BC

**Concurrent Session: Sixth Annual National Dam Security Forum Kick-Off:
Blast Damage Research**

Moderated by Robert K. Martinez, P.E., Nevada Division of Water Resources

Blast Damage Experiments and Simulations for Gravity Dams

Stephen Akers, Ph.D., Research Civil Engineer; William M. Hossley, Mathematician; Landon K. Davis, Research Consultant; and Carol F. Johnson Geotechnical and Structures Laboratory, U.S. Army Engineer Research and Development Center

Analyzing the Impacts of Explosions on Embankment Dams and Levees

James Parkes, P.E., Senior Geotechnical Engineer; Hugh Kelly, P.E., P.G., Senior Supervising Engineer; George Munfakh, P.E.; and Sunghoon Choi, P.E., Parsons Brinckerhoff, Inc.

Spillway Gates Experimental and Analytical Research

Jose A. Rullan-Rodriguez, Research Civil Engineer; Robert S. Browning, IV, M.S., E.I, Research Structural Engineer; Robert E. Walker, Research Structural Engineer; James L. O'Daniel, Research Structural Engineer; and William M. Hossley, Program Manager, U.S. Army Engineer Research and Development Center

10:30 am – 12:00 pm
Ballroom DE

Concurrent Session: Outlet Works

Moderated by Charles B. Wilson, P.E., Schnabel Engineering

Gilboa Dam - Planning and Design of a New Low Level Outlet

Everette H. Knight, P.E., Senior Associate, Hazen & Sawyer, P.C.; Emory Chase, Gilboa Dam Construction Accountable Manager; and John H. Vickers, P.E., Chief, Western Operations Division, New York City Department of Environmental Protection

Under Pressure: Aging Outlet Conduits

Jeremy R. Young, P.E., Associate; and John P. Harrison, P.E., Principal, Schnabel Engineering; Tyson R. Clouser, P.E., Project Engineer; and Anthony M. Nokovich, P.E., Senior Engineer, Pennsylvania American Water

Sliplining versus Cut and Cover Spillway Rehabilitation - Lessons Learned

Michael K. Sotak, P.E., Owner/Principal Engineer, FYRA Engineering

10:30 am – 12:00 pm
Room 555-556

Concurrent Session: Advances in Seepage Analysis

Moderated by Gregory Zamensky, P.E., Black & Veatch Corporation

Herbert Hoover Dike – Risk Analysis Update for a 143 Mile Long Dam in South Florida

Mark W. Pabst, P.E., Senior Technical Specialist; Ryan Grove, P.E.; John Kendall, P.E.; Christopher Papiernik; Geologist, and Jacob Davis P.E., Geotechnical Engineer, U.S. Army Corps of Engineers; Barney Davis, P.E., Construction Engineer; Andrew Hill; and Jim Wright, P.G., USACE Risk Management Center; Jennifer Williams, P.E., Project Manager; Jessie Drayton, Project Engineer; and John W. France, P.E., Vice President, URS Corporation

Early Seepage Design and Imperial Dam Internal Erosion Concerns

Daniel W. Osmun, P.E., Geotechnical Engineer; and Dom Galic, P.E., Geotechnical Engineer, Bureau of Reclamation

The Effects of Geometry in Levee Underseepage Reliability

Lourdes Polanco, Graduate Student; and John D. Rice, Assistant Professor, Department of Civil and Environmental Engineering, Utah State University

12:00 pm – 1:30 pm ASDSO Committee on Educational Outreach Meeting
Room 554B

12:00 pm – 1:30 pm Lunch On Own and Dine-Around

1:00 pm – 5:00 pm USSD Strategic Planning Meeting
Room 554A

1:30 pm – 5:00 pm ASDSO Dam Owner Outreach Committee Meeting
Room 553B

1:30 pm – 3:00 pm **Concurrent Session: Levee Safety – Addressing Technical Issues**
Ballroom A Moderated by Meghan C. Quinn, P.E., M.S.C.E., U.S. Army Corps of Engineers

Taking out the “Guesswork” when Evaluating Large Levee Systems

Michael G. Cox, P.E., P.P., Senior Project Manager; and Richard K. Lee, P.G., R.G.P., Principal Geophysicist, Gannett Fleming, Inc.

Analysis of 2009 Connecticut River Levee Failure Near Hadley, MA

David W. Sykora, Ph.D., P.E., G.E., Principal Engineer and Office Director, Exponent Failure Analysis Associates

Design Modifications and Rehabilitation of an Existing Levee Protecting a Waste Water Treatment Plant

Tyler C. Dunn, P.E., Senior Geotechnical Engineer; Michael P. Smith, P.E., Geotechnical Engineer; and Stephen L. Whiteside, P.E., Vice President, CDM Smith

1:30 pm – 3:00 pm **Concurrent Session: Tools for Estimating Consequences**
Ballroom BC Moderated by James W. Gallagher, P.E., NH Dept of Environmental Services

Life Loss Estimation from a Flood Event: A New Approach to Evacuation and Fatality with Uncertainty

Jason T. Needham, P.E., Senior Consequence Specialist; and Woodrow L. Fields, Hydraulic Engineer; U.S. Army Corps of Engineers

Using ECAM to Estimate Indirect Economic Consequences of Flood Events

Miles K. Light, Ph.D., Research Faculty, Business Research Division, University of Colorado-Boulder

Practical Tools for Estimating Loss of Life From Flooding: Which Approach Should I Use?

Jason T. Needham, P.E., Senior Consequence Specialist; William Lehman, Economist; and Woodrow L. Fields, Hydraulic Engineer; U.S. Army Corps of Engineers

1:30 pm – 3:00 pm
Ballroom DE

Concurrent Session: Federal Guidelines and Policy Updates

Moderated by Eric J. Ditchey, P.E., McCormick Taylor, Inc.

Selecting and Accommodating Inflow Design Floods for Dams: Beyond the Guidelines

Gregory L. Richards, P.E., CFM, Hydraulic and Hydrologic Engineer; Paul G. Schweiger, P.E., CFM, Vice President; and Amanda J. Hess, P.E., CFM, H&H Group Manager, Gannett Fleming, Inc.; Arthur C. Miller, Ph.D., P.E., CFM, Science Practice Leader, AECOM; and James E. Demby, Jr., P.E., Senior Technical and Policy Advisor, Federal Emergency Management Agency

FEMA 64 – Emergency Action Planning for Dams: Modernizing an Historical Guidance Document

Mishelle R. Noble-Blair, Senior Plant Engineer, Fairfax Water - Griffith Water Treatment Plant; and James E. Demby, Jr., P.E., Senior Technical and Policy Advisor, Federal Emergency Management Agency

Army Corps of Engineers Seepage Control Cutoffs for Dam and Levees Engineering Manual (EM)

David B. Paul, Lead Civil Engineer, U.S. Army Corps of Engineers

1:30 pm – 3:00 pm
Room 555-556

Concurrent Session: Breach Modeling – Subjectivity, Probability and Risk

Moderated by Gregory S. Paxson, P.E., Schnabel Engineering

The Personality Effect in Breach Modeling

Michael T. Chilson, P.E., Senior Project Civil Engineer, Golder Associates Inc.

Impact of Spatial Resolution on Downstream Flood Hazard Due to Dam Break Events Using Probabilistic Flood Modeling

Ebrahim Ahmadisharaf, Ph.D. Student; Md Nowfel Mahmud Bhuyian, MS Student; and Alfred Kalyanapu, Assistant Professor, Civil and Environmental Engineering Department, Tennessee Technological University

Moving Towards Risk-Informed Dam Breach Modeling

Christopher R. Goodell, P.E., D.WRE, Project Manager, WEST Consultants, Inc.

3:00 pm – 3:30 pm
5th Floor Ballroom Foyer

Refreshment Break

3:30 pm – 5:00 pm
Ballroom A

Concurrent Session: Levee Safety –Focus on Overtopping

Moderated by Jeffery G. Powers, P.E.

Life's a Breach: FEMA's New Structural-Based Inundation Procedures for Non-Accredited Levees

Tadd Henson, P.E., CFM, Senior Associate, Stantec Consulting, Inc.; and Amy Bergbreiter, P.E., CFM, Project Manager, ATKINS

Results of Full-Scale Wave Overtopping Simulation on Levee Slopes with Vegetative and Manufactured Protective Cover

Natalie A. Youngblood, Research Associate; Christopher I. Thornton, Ph.D., Director; Steven A. Hughes, Ph.D., Senior Research Scientist; and Bryan N. Scholl, Research Associate, Department of Civil and Environmental Engineering, Colorado State University; and Jeffrey Beasley, Ph.D., School of Plant, Environmental and Soil Sciences, Louisiana State University

Estimating Duration and Magnitude of Wind Setup and Wind Set-back Loading on Embankments

William J. Badini, CFM, Meteorologist; Elena Sossenkina, P.E., National Technical Advisor; and Katie Duty, P.E., Florida Water Resources Leader, HDR Engineering, Inc.

3:30 pm – 5:00 pm

Ballroom BC

Concurrent Session: Improving the Protection of Dams

Moderated by Roger P. Adams, P.E., Pennsylvania Department of Environmental Protection

Counter-Terrorism Capabilities Exercise: West Pinopolis Dam, Moncks Corner SC

S. Duane Lewis, Deputy Chief, Santee Cooper Public Service Authority Law Enforcement Division

A Pilot Project: Rapid Hazard Classification Screening of Non-Federally Owned Dams on Federal Land

Russell Reed, P.E., Water Resources Engineer; and Jason H. Thom, P.E., Senior Water Resources Engineer, DOWL HKM; Michele Lemieux, P.E., Dam Safety Project Manager, MT Department of Natural Resources and Conservation; and Christina Sorrels, Civil Engineer, USDA Forest Service

How to Implement Security in a State Dam Safety Program

John H. Moyle, P.E., Manager, New Jersey Department of Environmental Protection

3:30 pm – 5:00 pm

Ballroom DE

Concurrent Session: Overcoming Construction Obstacles – Man vs. Environment

Moderated by Robert R. Bowers, P.E., O'Brien and Gere

Successful Reconstruction of 3,000 feet of Earthen Embankment with a Full Reservoir - Collaboration During Construction – Case Study of the South Easton Pond Dam Repairs

Nils S. Wiberg, P.E., CFM, Senior Project Manager, Fuss & O'Neill, Inc.; and Julia A. Forgue, P.E., Director, City of Newport Department of Utilities

A Collaborative Success - Construction of the Mormon Island Auxiliary Dam Key-Block for Seismic Rehabilitation

M. Jonathan Harris, P.E., Civil/Geotechnical Engineer, Bureau of Reclamation; Eric S. Lindquist, P.E., Director of Engineering, Brierley Associates; Rob Jameson, Project Manager, Malcolm Drilling Company, Inc.; and Trace Porter, Project Manager, Shimmick Construction Company, Inc.

Racing into Future with the Indian Run Dam Rehabilitation

Jennifer M. Kowalonek, P.E., LEED AP, Project Manager, Alfred Benesch and Company

3:30 pm – 5:00 pm

Room 555-556

Concurrent Session: State Program Activities – Regulation, Review and Response

Moderated by Randall P. Bass, P.E., Schnabel Engineering

Regulating for Small Dams and Small Dam Owners

J. Matthew Bellisle, P.E., Senior Vice President, PARE Corporation; David E. Chopy, P.E., Chief; and Paul Guglielmino, Senior Sanitary Engineer, Office of Compliance and Inspection, RI Department of Environmental Management

Failure Modes of RCC Overtopping Design That Every State Dam Safety Regulator Needs to Know

Thomas I. Roberts, P.E., C.F.M., Regional Dam Safety Engineer, VA Department of Conservation and Recreation; Fares Y. Abdo, P.E., Director of Technical Services, Morgan Corporation; and David A. Krisnitski, P.E., C.F.M., Water Resources Engineer, Froehling & Robertson, Inc.

Mississippi's Big Dig - Managing the Percy Quin Dam Incident

James MacLellan, P.E., Director of Dam Safety Division, Mississippi Department of Environmental Quality

5:30 pm – 6:30 pm Welcome Reception
Exhibit Hall CD

TUESDAY, SEPTEMBER 10

7:00 am – 8:00 pm Speaker Preview Room Open
Room 558

7:00 am – 5:30 pm Registration Open
Exhibit CD Prefunction

7:30 am – 6:30 pm Poster Forum and Resource Center Open
5th Floor Ballroom Lobby & Rotunda

7:30 am – 6:30 pm Exhibits Open
Exhibit Hall CD

7:30 am – 8:30 am Continental Breakfast
Exhibit Hall CD

8:30 am – 5:00 pm Workshop for Dam Owners and Operators
Room 552

8:30 am – 10:00 am **General Session: 50th Anniversary of Spaulding Pond Dam Failure**
Ballroom A Moderated by Mark E. Baker, P.E., National Park Service

Background and Failure

Thomas Moody, Jr., Author of the book: “A Swift and Deadly Maelstrom: The Great Norwich Flood of 1963”

Warning and Evacuation

Mark E. Baker, P.E., National Park Service

Failure Investigation

Steve J. Poulos, Ph.D., Principal, GEI Consultants, Inc.;

Impact on CT Dam Safety Program and the New Dam

Peter L. Spangenberg, CEIII, Connecticut Department of Environmental Protection

10:00 am – 10:30 am Refreshment Break
Exhibit Hall CD

10:30 am – 12:30 pm Media Training Session
Waterplace II-Omni Hotel

10:30 am – 12:00 pm ASDSO Committee on Security and Risk Mitigation Meeting
Room 553B

10:30 am – 12:00 pm **Concurrent Session: Decade Dam Failure Anniversaries**
Ballroom A Moderated by: Dusty Myers, P.E., Mississippi Dept of Environmental Quality

90th: Gleno Dam in Italy
Scott M. Arends, Hanson Professional Services, Inc.; and William R. Fiedler, Bureau of Reclamation

80th: Castlewood Canyon Dam in Colorado
Lee Mauney, Hydrologic Engineer, U.S. Bureau of Reclamation

70th: Eder and Mohne Dams in Germany
Dusty Myers, P.E., Mississippi Department of Environmental Quality

50th: Baldwin Hills Dam in California
Lucas A. Trumble, P.E., Michigan Department of Environmental Quality

50th: Vajont Dam in Italy
Lee Mauney, Hydrologic Engineer; and Wayne Graham, P.E., (retired) U.S. Bureau of Reclamation

10th: Silver Lake Dam in Michigan
James T. Pawloski, P.E., and Lucas A. Trumble, P.E., Michigan Department of Environmental Quality

10:30 am – 12:00 pm **Concurrent Session: Risk Assessment Methodologies**
Ballroom BC Moderated by Steven McEvoy, P.E., North Carolina Department of Natural and
Environmental Resources

SimRiskCalc - A Spreadsheet Implementation for Simplified Risk Analysis Calculations
John W. France, P.E., Vice President, URS Corporation; and Mark W. Pabst, P.E., Senior Geotechnical Engineer,
U.S. Army Corps of Engineers, Risk Management Center

ISO Standards Applied to Dam Sector Security Risk Methodologies
William F. Foos, LTC (Ret.) MBA, CPP, PSP, Director of Security Services; and Andrew Campbell, CPT (USAR)
Security Analyst, Gannett Fleming, Inc.

Measuring Loss of Life: Are More Standards Needed for a Highly Detailed Approach?
Michael Crouch, CFM, P.E.; and Nathan Lefkovitz, GSP, AMEC Environment and Infrastructure

10:30 am – 12:00 pm
Ballroom DE

Concurrent Session: Inspection of Dams – Beyond the Checklist
Moderated by Anthony M. Nokovich, P.E., Pennsylvania American Water

Detailed Inspections, Modeling, and Forward Thinking: Preserving the Historic Germantown and Englewood Dams
Michael A. Lach, P.E., Geotechnical Engineer; Kapila S. Pathirage, P.E., Senior Geotechnical Engineer; and William J. Friers, P.E., Senior Civil Engineer, CDM Smith; and Barry Puskas, Manager, Technical Services, Miami Conservancy District

Pocket Safety Guide for Dams and Impoundments and Training DVD
James S. Groenier, Project Leader, USDA – Forest Service

The Path of Least Resistance? Inspecting Where Water Should and Should Not Flow at an Earthen Dam
Trevor W. Timberlake, Project Manager and Water Resources Engineer, URS Corporation; and Gary Wells, P.E., Senior Dam Safety Engineer, Kentucky Division of Water

10:30 am – 12:00 pm
Room 555-556

Concurrent Session: Floodwave Modeling
Moderated by John Ritchey, P.E., New Jersey Department of Environmental Protection

Reassessing Dam Hazard Classification: Part II Consequence Evaluation Using State-of-the-Art Hydraulic Modeling Tools

Benjamin P. Israel-Devadason, P.E., CFM., Hydraulic and Hydrologic Engineer; Amanda J. Hess, P.E., CFM, H&H Group Manager; and Paul G. Schweiger, P.E., CFM, Vice President, Gannett Fleming, Inc.; and Brad Iarossi, P.E., Chief of Dam Safety, U.S. Fish & Wildlife Service

Comparison of 2-Dimensional Hydraulic Models for Assessing Levee Breach Inundations
Christopher Bahner, P.E., D.WRE, Senior Hydraulic Engineer, WEST Consultants, Inc.

Grab-N-Go Presentations/Short Talks:

Dam Break and Flood Wave Routing - One-Dimension or Two

Cidney Jones, EIT, Teaching Assistant; and Norman D. Folmar, Ph.D., P.E., Instructor and Undergraduate Program Director, The Pennsylvania State University

Applicability of Two-Dimensional Dam Failure Inundation Modeling

Claire Sichko, Hydraulic Engineer; and David Railsback, Hydraulic Engineer, ARCADIS

WINDAM C Earthen Embankment Internal Erosion Analysis Software

Karl Visser, P.E., Hydraulic Engineer, USDA – Natural Resources Conservation Service; Ronald D. Tejral, P.E., Agricultural Research Engineer, USDA – Agricultural Research Service; and Mitchell L. Neilsen, Ph.D., Professor of Computing and Informational Sciences, Kansas State University

12:00 pm – 1:30 pm
554B

ASDSO Levee Safety Committee Meeting

12:00 pm – 1:30 pm

Lunch on Own and Poster Lightning Talks

1:00 pm – 3:00 pm
Room 554A

ICODS Task Group Facilitated Meeting: Non-Federal Dams on Federal Land

1:30 pm – 3:30 pm
Waterplace II-Omni Hotel

Media Training Session

1:30 pm – 3:00 pm
Room 553B

ASDSO Peer Review Committee Meeting

1:30 pm – 3:00 pm
Ballroom A

Concurrent Session: Dam Failures, Incidents and Exceptional Circumstances

Moderated by Brian Desfosses, P.E., New Hampshire Department of Environmental Services

Behavior of Dams under Large Floods

Mohammed G. Kabir, Ph.D., P.E., Civil Engineer, Federal Energy Regulatory Commission

Fire, Flooding, and Overtopping at the Santa Clara Pueblo Dams

Michael C. Vail, P.E., Civil Engineer/Construction Specialist; and Jack G. Byers, P.E., Chief, Dam Safety, Security and Emergency Management Branch, Bureau of Indian Affairs

Damage and Recovery from Hurricane Irene – 3 Dam Failure Case Studies In Massachusetts

Steven M. Sroka, P.E., Project Engineer; and Christopher D. Haker, P.E., Principal Engineer, Tighe & Bond

1:30 pm – 3:00 pm
Ballroom BC

Concurrent Session: Cyber Security Issues

Moderated by Barry Kuehnle, Federal Energy Regulatory Commission

Cyber Security Issues for Performance Monitoring Systems

W. Allen Marr, Ph.D., P.E., Geocomp Corporation; and William Broderick, P.E., Managing Principal, Paul C. Rizzo Associates, Inc.

Update on Dams Sector Cyber-Security Task Force

James H. Graham, Ph.D., Intelligent Systems Research Laboratory, University of Louisville

Third Presentation TBA

1:30 pm – 3:00 pm
Ballroom DE

Concurrent Session: Reducing the Cost of Dam Removals Through Sediment Management

Moderated by Stephen L. Whiteside, P.E., CDM Smith.

Finding Solutions to the Many Potentially Conflicting Implications of Dam Removal - Two Case Studies

Jennifer L. Perry, P.E., Supervising Environmental Analyst, CT Department of Energy and Environmental Protection

Condit Dam Decommissioning: Demolition is Not Construction, Lessons Learned From the Removal of a 100-year old Structure

Stephen Caruana, CESCL, Environmental Planning Leader, Kleinfelder, Inc.

Dam Removal in New York - A Case Study in Satisfying Dam Safety and Restoration Needs

Gary B. Emmanuel, P.E., Senior Managing Engineer, O'Brien & Gere Engineers

1:30 pm – 3:00 pm
Room 555-556

Concurrent Session: Pore Pressures and Slope Stability Analysis
Moderated by Joseph R. Kula, P.E., URS Corporation

Use of Permeation Grouting to Stop Seepage Through an Earthen Dam and Levee

Bill Phillips, Vice President, Green Mountain International, LLC; and Henry A. Russell, Jr., P.E., Senior Vice President, Parsons Brinckerhoff, Inc.

Some Unexpected “Modern” Complications in Seepage and Slope Stability Analysis: Modeling Pore Pressures and Strengths for Flood Loaded Structures

Scott E. Shewbridge, Ph.D., P.E., G.E., Senior Geotechnical and Risk Engineer; and Jeffrey A. Schaefer, Ph.D., P.E., P.G., Lead Engineer, U.S. Army Corps of Engineers Risk Management Center

Evaluation of Reoperation at San Justo Reservoir

Graham C. Bradner, P.G., C.HG, C.E.G., Senior Geologist; and Stephen W. Verigin, P.E., G.E., Senior Vice-President, GEI Consultants, Inc.; and Harry L. Blohm, P.E., Blohm Consulting

3:00 pm – 3:30 pm
Exhibit Hall CD

Refreshment Break

3:30 pm – 5:00 pm
Ballroom A

Concurrent Session: After the Flood – The Effects of Dam Failures on People and Communities

Moderated by Arthur C. Miller, P.E., CFM, AECOM

The Influence of Dam Failures on Dam Safety Laws in Pennsylvania

Andrew T. Rose, Ph.D., P.E., Associate Professor, University of Pittsburgh at Johnstown

The Bayless Dam Failure: Separating Fact from Folklore

Robert A. Kline, Jr., P.E., Vice President and Engineering Manager, Gannett Fleming, Inc.

Human Factors in Dam Failure

Irfan A. Alvi, P.E., President and Chief Engineer, Alvi Associates, Inc.

3:30 pm – 5:00 pm
Ballroom BC

Concurrent Session: Lessons Learned from Attacks on Dams

Moderated by Enrique E. Matheu, Ph.D., US Department of Homeland Security

Worldwide Attacks Against Dams: A Historical Perspective

Michael L. Bowen, Chief: Daniel Rivera, Security Specialist; Michelle L. Yezierski, P.E., Civil Engineer; and Enrique E. Matheu, Ph.D., Critical Lifelines Branch Chief, Dams and Water Infrastructure Section, Department of Homeland Security

Active Shooter and Workplace Violence – Have a Plan

Alan Seitz, Protective Security Advisor, National Protection and Programs Directorate, U.S. Department of Homeland Security

Those Who Ignore History.....

Frank Calcagno, Engineering Geologist/Security Specialist, Federal Energy Regulatory Commission

3:30 pm – 5:00 pm
Ballroom DE

Concurrent Session: RCC Case Studies

Moderated by Terrence E. Arnold, P.E., MWH Americas, Inc.

New Life for New Creek Site 14 Dam - A Comprehensive Rehabilitation of an Aging NRCS High Hazard Earthfill Dam

Donald P. Roarabaugh, Jr., P.E., Project Manager; Rodney E. Holderbaum, P.E., PLS, Vice President; Paul G. Schweiger, P.E., CFM, Vice President; and Cari Beenenga, P.E., Senior Geotechnical Engineer, Gannett Fleming, Inc.; L. Andrew Deichert, P.E., State Conservation Engineer; and Jeff McClure, Geologist, USDA – Natural Resources Conservation Service

Hardfill on the Ohio River: Optimizing the Use of Construction Materials Over 750 River Miles

Stefano Truschke, P.E., Senior Civil Engineer; Terrence E. Arnold, P.E., Principal Engineer; and Brandi Antal, Civil Engineer, MWH Americas, Inc.; and Phil Meier, Assistant Vice President for Hydro Development, American Municipal Power

Cabresto Dam Rehabilitation - A Case of Constrained Construction

Robert J. Huzjak, P.E., President; and J. Douglas Neighbors, P.E., Project Manager, RJH Consultants, Inc.

3:30 pm – 5:00 pm
Room 555-556

Concurrent Session: What's New in PMP and PMF?

Moderated by Bill McCormick III, P.E., P.G., CO Division of Water Resources

Ohio Statewide PMP Study - Methods, Process, Results

Bill D. Kappel, Senior Meteorologist and Vice President; Edward M. Tomlinson, Ph.D., Chief Meteorologist and President; Doug Hulstrand, Hydrometeorologist; and Geoff Muhlestein, GIS Specialist and Staff Scientist, Applied Weather Associates LLC; and Tadd Henson, P.E., CFM, Senior Associate, Stantec Consulting, Inc.

Estimating Probable Maximum Flood from a Forested Watershed with Highly Permeable Soils

Omid Mohseni, Senior Water Resources Engineer; and Rita Weaver, Water Resources Engineer, Barr Engineering Company; and Adam Monroe, Dam Safety Engineer, Consumers Energy

Calculating Arizona Basin-Specific PMP Using the PMP Evaluation Tool

Bill D. Kappel, Senior Meteorologist and Vice President; Geoff Muhlestein, GIS Specialist and Staff Scientist; Edward M. Tomlinson, Ph.D., Chief Meteorologist and President; and Doug Hulstrand, Hydrometeorologist, Applied Weather Associates; and Michael J. Johnson, Ph.D., P.E., Assistant Director-Engineering and Permits, Arizona Department of Water Resources

5:30 pm – 6:30 pm
Exhibit Hall CD

Reception and Door Prize Drawings

WEDNESDAY, SEPTEMBER 11

7:00 am – 4:00 pm
Room 558

Speaker Preview Room Open

7:30 am – 4:00 pm
Exhibit CD Prefunction

Registration Open

7:30 am – 4:00 pm Poster Forum and Resource Center Open
5th Floor Ballroom Lobby & Rotunda

7:30 am – 6:30 pm Exhibits Open
Exhibit Hall CD

7:30 am – 8:30 am Continental Breakfast
Exhibit Hall CD

8:00 am – 4:00 pm Hydro Quebec Research Institute Meeting
552B

8:30 am – 10:30 pm Media Training Session
Waterplace II-Omni Hotel

8:30 am – 10:00 am ASDSO Dam Failures & Incidents Committee Meeting
553B

8:30 am – 10:00 am **Concurrent Session: Those Dam Earthquakes – History, Practice and Prediction**
Ballroom A
Moderated by R. Craig Findlay, PH.D., P.E., G.E., Findlay Engineering, Inc.

Predicting Dam Deformation Caused by Earthquake - An Update
James R. Swaisgood, P.E., C.P.G., Principal, Swaisgood Consulting

Remedial Alternatives to Address Seismic, Flood, and Reservoir Drawdown Deficiencies at Anderson Dam
Leslie F. Harder, Jr., Ph.D., P.E., G.E., Senior Water Resources Technical Advisor; John Parrish, Ph.D., P.E., Senior Civil Engineer; Serge Jimenez, P.E., Water Resource Management Sector Lead; and Craig Wallace, P.E., Senior Water Resources Engineer, HDR Engineering, Inc.; Emmanuel Aryee, P.E., Engineering Unit Manager, Santa Clara Valley Water District; Marc Ryan, P.E., G.E., Principal Engineer, AMEC Environment and Infrastructure; and Shawn Spreng, P.E., Senior Project Engineer, Jacobs Associates

Seismic Upgrades for Concrete Dams - Then and Now
Kenneth D. Hansen, P.E., Consulting Engineer; and Larry K. Nuss, P.E., Structural Engineer, Nuss Engineering, LLC

8:30 am – 10:00 am **Concurrent Session: Understanding and Applying Risk Evaluation Methodologies**
Ballroom BC
Moderated by Douglas L. Johnson, P.E., Federal Energy Regulatory Commission

Risk of Dam Failure Due to Sinkhole Formation
Jacob J. Esterhuizen, Ph.D., P.E., Senior Technologist; Richard E. Riker, P.E.; and Randall K. Bushey, P.E., Senior Water Resources Consultant, CH2M Hill; Loren R. Anderson, P.E., Ph.D., RAC Engineers and Economists; and George M. Filz, P.E., Ph.D., Virginia Tech

A Risk Assessment with the FERC

Guy S. Lund, P.E., Principal Civil/Structural Engineer, URS Corporation; William G. Christman, P.E., Dam Safety Engineer; and Gene Yow, P.E., Principal Civil Engineer, Chelan County Public Utility District

What is ALARP and How Can it Improve Dam Safety Decisions?

David S. Bowles, Ph.D., P.E., P.H., Managing Principal, RAC Engineers & Economists

8:30 am – 10:00 am
Ballroom DE

Concurrent Session: Instrumentation, Monitoring and Early Warning

Moderated by Doug Lantz, Ph.D., P.E., Tetra Tech, Inc.

iLevee – Intelligent Flood Protection Monitoring, Warning and Response System

J. Nicolas Betancur, Assistant Project Manager; and William A. Marr, P.E., CEO and Chief Engineer, Geocomp Corporation; Rickey P. Brouillette, P.E., Engineer Manager; and William Wall, P.E., Engineer Manager, Coastal Protection and Restoration Authority of Louisiana

Monitoring 11,800 Watershed Dams Using the Web-Based DamWatch® System

Larry W. Caldwell, P.E., Retired; and Noller Herbert, P.E., Director, Conservation Engineering Division, USDA – Natural Resources Conservation Service; and Joseph Scannell, President, USEngineering Solutions Corp.

Slope Stability, Infrastructure and Critical Dam Operations Monitoring Using Radar

Pierre-Jean Alasset, Ph.D., Senior Earth Observation Scientist; Jerry English, P.Ge., Senior Geophysicist; and Paul Adlakha, P.Eng., Director of Marketing C-CORE; Madlena Hakobyan, Ph.D. Student, MUN/C-CORE; Bob Allan, President, Nova-Consult; and Ellis O'Neil, P.Eng., Senior Specialist Engineer, Nova Scotia Power Lakeside.

8:30 am – 10:00 am
Room 555-556

Concurrent Session: Water Control Issues - Temporary Stream Diversion = Permanent Anxiety

Moderated by Chad W. Cox, P.E., GZA GeoEnvironmental, Inc.

Stream Diversion Roulette

Warren S. Hayden, P.E., Senior Project Engineer, Mead & Hunt, Inc.

Design of Critical Water Control for Construction of Repairs to Two Former Mill Dams

Arthur P. Christian, II, P.E., Supervising Engineer, Connecticut Department of Energy and Environmental Protection

Water Control During Construction of Dam Repairs – A Review of Federal Guidance, Regulatory Requirements, and Successful Approaches

Philip W. Moreschi, P.E., CFM, Vice President, Fuss & O'Neill, Inc.

10:00 am – 10:30 am
Exhibit Hall CD

Refreshment Break

10:30 am – 12:00 pm
Room 552A

ASDSO Technical Training Committee and NDSRB Training Work Group Meeting

10:30 am – 12:00 pm
Ballroom A

Concurrent Session: Spillways and Overtopping

Moderated by Peter H. Baril, P.E., GZA Geoenvironmental Inc.

When Air Really Matters: Flow Depth Relationships for Stepped Spillways

Sherry L. Hunt, Ph.D., Acting Research Leader; Kem C. Kadavy, P.E., Agricultural Engineer; and Gregory J. Hanson, Ph.D., P.E., Retired, USDA–ARS Hydraulic Engineering Research Unit

Millsite Dam Arced Labyrinth Weir Design: Applying Research and Modeling for an Atypical Approach Condition

Aaron C. Spencer, P.E., Water Resources Engineer, Utah Division of Water Resources; and Blake P. Tullis, Ph.D., Associate Professor, Utah State University

The ABCs of ACBs - What Have We Learned, 12 Years Later: Armoring Embankment Dams, Levees and Spillways with ACBs

Paul G. Schweiger, P.E., CFM, Vice President, Gannett Fleming, Inc.; and Darin Shaffer, P.E, Civil Engineer, New Jersey Department of Environmental Protection

10:30 am – 12:00 pm
Ballroom BC

Concurrent Session: Dam Safety Pot Pourri – the Bonus Round

Moderated by Mark Haddock, P.E., R.G., Golder Associates

A New Path Forward for Dam Safety - TVA Dam Safety Governance

George A. Kelley P.E., SECB, F.ASCE, Senior Manager, Technical Services and Dam Safety Governance, Tennessee Valley Authority

Gwinnett Countywide Dam Breach Modeling and Mapping for Emergency Preparedness

Gregg W. Hudock, P.E., Senior Consultant, Golder Associates Inc.; Sam Fleming, P.E., Senior Project Manager, Dewberry Consultants; and Jonathan Semerjian, P.E., Chief Engineer, Gwinnett County Department of Water Resources

Removal of San Clemente Dam – Project Summary and Unique Challenges

Seth Gentzler, P.E., Senior Engineer, URS Corporation; and Richard Svindland, P.E., Vice President-Engineering, California American Water; Trish Chapman, Central Coast Regional Manager, California State Coastal Conservancy; and Joyce Ambrosius, Central Coast Supervisor, NOAA National Marine Fisheries Service

10:30 am – 12:00 pm
Ballroom DE

**Concurrent Session: Dam Rehabilitation – Meeting Today’s Challenges
Part I**

Moderated by Dean B. Durkee, Ph.D., P.E., Gannett Fleming, Inc.

Challenges of Building an RCC Dam on a Karstic Foundation

Victor M. Vasquez, P.E., Project Manager; Tina Stanard, P.E., Design Engineer; Matthew L. Moses, P.E., Senior Structural Engineer; Charles N. Easton, P.E., Senior Geotechnical Engineer; and Les Boyd, P.E., Senior Structural Engineer, Freese & Nichols, Inc.

Rehabilitation of Nacala Dam, Mozambique

Siamac Vaghar, P.E., Chief, Geotechnical Engineering Section; Patrick Blumeris, P.E., MASCE, Hydraulic Engineer; and Michael Andryuk, M.Eng., Geostructural Engineer, U.S. Army Corps of Engineers

Tsaile Dam Rehabilitation

Jack G. Byers, P.E., Chief, Dam Safety, Security and Emergency Management; and Charles E. Larson, P.E., Project Manager, Kleinfelder, Inc.

10:30 am – 12:00 pm

Concurrent Session: Hazard Classification Soapbox

Room 555-556

Moderated by Keith Mills, P.E., G.E., Oregon Water Resources Department

Hazard Classification Review for Existing Dams

Keith Mills, P.E., G.E., Dam Safety Engineer and Program Manager, OR Water Resources Department

New York's Draft Guidelines for Dam Hazard Classification

Alon Dominitz, P.E., Chief – Dam Safety Section, New York State Department of Environmental Conservation

Hazard Reclassification for Dams in Oklahoma

Yohanes Sugeng, P.E., CFM, Dam Safety Program Manager; Zachary Hollandsworth, E.I., CFM, Dam Safety Engineer; and Robert S. Fabian, Technical Section Head (retired), Oklahoma Water Resources Board

Low Hazard Maybe, Great Value Absolutely: Screening Level Risk Assessment for Low Hazard Dams

Mark E. Baker, P.E., Dam Safety Officer, National Park Service; Elena Sossenkina, P.E., National Technical Advisor; and Keith A. Ferguson, P.E., Principal Professional Associate and National Practice Leader, HDR, Inc.

12:00 pm – 1:30 pm

Lunch On Own

1:30 pm – 3:00 pm

ASDSO Outlet Works Committee Meeting

Room 553B

1:30 pm – 3:00 pm

Concurrent Session: Solving Challenges with Emergency Planning

Ballroom BC

Moderated by Mishelle R. Noble-Blair, Fairfax Water

Alarm - "True or False"-Reliance on Instrumentation Monitoring to Minimize Dam Failure Consequences

Roderick M. Dela Cruz, P.E., Senior Dam Safety Engineer and Program Manager; Warren Abatay, Technical Specialist; John Dong, P.E., Ph.D., Dam Safety Engineer; and Theresa Loun, Project Manager, Southern California Edison

A Capital Risk: Flooding and the Washington DC Levee System

Mark E. Baker, P.E., Dam Safety Officer, National Park Service

Time Sensitive EAPs

Paul Shannon, Branch Chief, Federal Energy Regulatory Commission

1:30 pm – 3:00 pm

**Concurrent Session: Dam Rehabilitation – Meeting Today's Challenges
Part II**

Ballroom DE

Moderated by Kenneth Avery, P.E., Bergmann Associates, PC

Emergency Repairs to ODNR's Dam No. 6: Muskingum Lock and Dam System, Stockport, Ohio

Pete Nix, P.E., Senior Program Manager, Tetra Tech, Inc.

Facelift and Increased Functionality and Reliability of a 68-Year Old Terminal Storage Reservoir

Cody M. Cockroft, P.E., Project Manager; Nikolas P. Kotsatos, P.E., Engineer, and J. Patrick Miles, II P.E., Engineer, Freese and Nichols, Inc.; and Larry Gregory, Highlands Division Manager, San Jacinto River Authority

The Rehabilitation of the Lake Gerard Dams

Robert H. Fox, P.E., Principal Engineer; and Paul D. Fox, Apgar Associates; Joseph A. Fischer, P.E., President; and Joseph J. Fischer, Geoscience Services

1:30 pm – 3:00 pm

Room 555-556

Concurrent Session: Focus on Concrete Dams

Moderated by Dennis J. Hogan, P.E., Black & Veatch Corporation

A Second Century for Agnew Lake Dam

John C. Stoessel, P.E., Senior Engineer, Southern California Edison; and John A. Wilkes, P.E., President, Carpi USA, Inc.

The Devils in the Details at Devils Kitchen Dam

Christopher M. Hallahan, P.E., Geotechnical Project Engineer; Robert T. Saber, P.E., Principal Geotechnical Engineer; and Paul G. Schweiger, P.E., CFM, Vice President, Gannett Fleming, Inc.; and Brad Iarossi, P.E., Chief of Dam Safety, U.S. Fish and Wildlife Service

Considerations for Stability Analysis of Concrete Gravity Dams

David Bentler, Ph.D., P.E., Senior Geotechnical Engineer; and Jacob J. Esterhuizen, Ph.D., P.E., Senior Technologist, CH2M Hill

3:00 pm – 3:30 pm

Exhibit CD

Refreshment Break

3:30 pm – 5:00 pm

Room 552A

NDSRB Research Work Group Meeting

3:30 pm – 5:00 pm

Ballroom BC

Concurrent Session: Hydraulic Modeling and Mapping for Unique Dam Projects

Moderated by Paul G. Schweiger, P.E., CFM, Gannett Fleming, Inc.

Downstream Effects Resulting from the Operation of the Pompton Lake Dam Floodgates

Arthur C. Miller, P.E., CFM, Science Practice Leader; Brian Cahill, Engineer III; and Michael Mak, Ecological Engineer Specialist, AECOM; John H. Moyle, P.E., Manager – Bureau of Dam Safety and Flood Control; and Russell Ray, Engineer, New Jersey Department of Environmental Protection

The Importance of Using Two-Dimensional Flexible Meshes to Simulate Dam-Break Flooding over Complex Terrain

Reinaldo Garcia, President; and Noemi Gonzalez, Senior Hydraulic Engineer, Hydronia, LLC

CLOMR? What CLOMR? FEMA Floodplain Mapping Requirements for Dam Removal Projects – How Planning and Implementing Effective Strategies Can Minimize the Time/Cost of Compliance for Your Project

Sean D. Arruda, P.E., CFM, Senior Civil Engineer, Fuss & O'Neill, Inc.; and David R. Knowles, P.E., Hydrogeologist, Federal Emergency Management Agency

3:30 pm – 5:00 pm
Ballroom DE

**Concurrent Session: Dam Rehabilitation – Meeting Today’s Challenges
Part III**

Moderated by David W. Sykora, Ph.D., P.E., G.E., Exponent

Replacing 235 Years of Dam Good Service - The New Ragged Mountain Dam

Randall P. Bass, P.E., Principal, Schnabel Engineering; and Jennifer A. Whitaker, P.E., Chief Engineer, Rivanna Water & Sewer Authority

Ashton Dam - Meeting the Challenge of Reconstructing History

Jennifer L. Williams, P.E., Project Manager; Richard R. Davidson, P.E., Vice President; and Jason A. Boomer, P.E., Project Engineer, URS Corporation; and Roger L. Raeburn, P.E., Chief Dam Safety Engineer, PacifiCorp Energy

Picatinny Arsenal Dams - The Long Road to Rehab

N. Johan Anestad, P.E., Technical Associate; and Robert R. Bowers, P.E., Vice President, Dams and Water Resources, O'Brien & Gere Engineers, Inc.

3:30 pm – 5:00 pm
Room 555-556

Concurrent Session: Fresh Twists on Drill, Post and Fill

Moderated by Steve H. Snider, P.E., O'Brien & Gere

Pressure Grouting – A Multipurpose Solution for Dam Rehabilitation

Mark E. Kitko, Project Manager; and Jeremy Wise, Project Engineer, Geo-Con

The History of Down-the-Hole Drilling and the Use of Water-Powered Hammers

Donald A. Bruce, Ph.D., President, Geosystems, L.P.; Rudy Lyon, Research and Development Manager, Center Rock, Inc.; and Stefan Swartling, Marketing Director, LKAB Wassara AB

Fish Weir to Flood Control: Reconstruction of an Historic New England Dam

Derek J. Schipper, P.E., Senior Project Manager; and Chad W. Cox, P.E., Principal, GZA GeoEnvironmental Inc.; and William A. Gode-Von Aesch, Director, Flood Control Management and Navigational Operations, Massachusetts Department of Conservation and Recreation

5:30 pm – 6:30 pm
Exhibit Hall CD

Reception and Door Prize Drawings

6:30 pm – 8:30 pm
Ballroom A

Annual Awards Banquet

THURSDAY, SEPTEMBER 12

8:00 am – 5:00 pm
Room 553B

FERC Managers Meeting

8:30 am – 5:00 pm

Field Trip to South Easton Pond Dam in Newport, Rhode Island

8:30 am – 3:00 pm

Field Trip to Spaulding Pond Dam in Norwich, Connecticut

8:30 am – 1:00 pm

Field Trip to Alden Research Laboratory, Holden, Massachusetts