### Sunday, April 7

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>3:00 pm - 6:00 pm</td>
<td>Registration Desk Open</td>
<td>Hilton Lower Level</td>
</tr>
</tbody>
</table>

### Monday, April 8

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:30 am - 7:00 pm</td>
<td>Registration Desk Open</td>
<td>Hilton Lower Level</td>
</tr>
<tr>
<td>8:30 am - 12:00 noon</td>
<td>Conference Opening Session</td>
<td>Boulevard ABC</td>
</tr>
<tr>
<td>8:30 am - 12:00 noon</td>
<td>Recognition of Outgoing Board Members and Committee Chairs</td>
<td>Boulevard ABC</td>
</tr>
<tr>
<td>1:30 pm - 3:30 pm</td>
<td>Committee Meetings Session 1</td>
<td>Various</td>
</tr>
<tr>
<td>3:30 pm - 4:00 pm</td>
<td>Break</td>
<td>Various</td>
</tr>
<tr>
<td>4:00 pm - 6:00 pm</td>
<td>Committee Meetings Session 2</td>
<td>Various</td>
</tr>
<tr>
<td>6:00 pm - 7:30 pm</td>
<td>Kickoff Reception and Exhibition Opening</td>
<td>Salon CD, Lower Level</td>
</tr>
</tbody>
</table>

### Tuesday, May 9

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:00 am - 5:30 pm</td>
<td>Registration Desk Open</td>
<td>Hilton Lower Level</td>
</tr>
<tr>
<td>8:30 am - 10:15 am</td>
<td>Plenary Session I — Engineering in the Second City</td>
<td>Grand Ballroom, 2nd Floor</td>
</tr>
<tr>
<td>10:15 am - 10:45 am</td>
<td>Break in Exhibit Hall</td>
<td>Salon CD, Lower Level</td>
</tr>
<tr>
<td>10:45 am - 12:15 pm</td>
<td>Concurrent Technical Sessions Track 1</td>
<td>Salons A1-A5, Lower Level</td>
</tr>
<tr>
<td>12:15 pm - 1:30 pm</td>
<td>Lunch in Exhibit Hall</td>
<td>Salon CD, Lower Level</td>
</tr>
<tr>
<td>1:30 pm - 3:30 pm</td>
<td>Concurrent Technical Sessions Track 2</td>
<td>Salons A1-A5, Lower Level</td>
</tr>
<tr>
<td>3:30 pm - 4:00 pm</td>
<td>Break in Exhibit Hall</td>
<td>Salon CD, Lower Level</td>
</tr>
<tr>
<td>3:30 pm - 6:00 pm</td>
<td>Poster Session in USSD Pavilion</td>
<td>Salon CD, Lower Level</td>
</tr>
<tr>
<td>4:00 pm - 6:00 pm</td>
<td>Committee Meetings Session 3</td>
<td>Various</td>
</tr>
<tr>
<td>6:00 pm - 7:30 pm</td>
<td>Reception in Exhibit Hall</td>
<td>Salon CD, Lower Level</td>
</tr>
</tbody>
</table>
## Wednesday, April 10

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:00 am - 6:00pm</td>
<td>Registration Desk Open</td>
<td>Hilton Lower Level</td>
</tr>
<tr>
<td>8:30 am - 10:15 am</td>
<td>Plenary Session II — Dam History and Future Trends</td>
<td>Grand Ballroom, 2nd Floor</td>
</tr>
<tr>
<td>Moderator — Rachael Bisnett, Stantec</td>
<td>USSD Historical Milestones, Keith Ferguson, HDR</td>
<td></td>
</tr>
<tr>
<td>30+ Years of Dam Rehabilitation in the United States, Greg Paxson, Schnabel Engineering; Elena Sossenkina, HDR; Nate Snorteland and Rebecca Ragon, USACE; and Stephanie Williams, HDR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Australia’s Risk-Based Dam Safety Regulation, Shane McGrath, ANCOLD President</td>
<td></td>
<td></td>
</tr>
<tr>
<td>United States Regulatory Future, Commissioner Cheryl A. LaFleur, FERC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Award Presentations</td>
<td><em>Public Safety and Security for Dams Recognition</em></td>
<td></td>
</tr>
<tr>
<td>10:15 am - 10:45 am</td>
<td>Break in Exhibit Hall</td>
<td>Salon CD, Lower Level</td>
</tr>
<tr>
<td>10:45 am - 12:15 pm</td>
<td>Concurrent Technical Sessions Track 3</td>
<td>Salons A1-A5, Lower Level</td>
</tr>
<tr>
<td>10:45 am - 12:15 pm</td>
<td>Concurrent Technical Sessions Track 3</td>
<td>Salons A1-A5, Lower Level</td>
</tr>
<tr>
<td>12:15 pm - 1:30 pm</td>
<td>Lunch in Exhibit Hall</td>
<td>Salon CD, Lower Level Boulevard ABC</td>
</tr>
<tr>
<td>12:15 pm - 1:30 pm</td>
<td>Young Professional Mentoring Luncheon (pre-registration required)</td>
<td></td>
</tr>
<tr>
<td>1:30 pm - 3:30 pm</td>
<td>Concurrent Technical Sessions Track 4</td>
<td>Salons A1-A5, Lower Level</td>
</tr>
<tr>
<td>3:30 pm - 4:00 pm</td>
<td>Break in Exhibit Hall</td>
<td>Salon CD, Lower Level</td>
</tr>
<tr>
<td>4:00 pm - 6:00 pm</td>
<td>Concurrent Technical Sessions Track 5</td>
<td>Exhibit Hall Various</td>
</tr>
<tr>
<td>6:30 pm - 9:30 pm</td>
<td>Closing Party (ticketed)</td>
<td>The Crystal Gardens, Navy Pier</td>
</tr>
</tbody>
</table>

## Thursday, April 11

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:30 am - 1:00 pm</td>
<td>Workshop Registration</td>
<td>Salon A, Lower Level</td>
</tr>
<tr>
<td>8:00 am - 12:00 noon</td>
<td>TARP Project Field Tour (extra fee)</td>
<td></td>
</tr>
<tr>
<td>8:00 am - 12:00 noon</td>
<td>Workshop 1: Flood Consequence Estimation with HEC-LifeSim</td>
<td></td>
</tr>
<tr>
<td>8:00 am - 12:00 noon</td>
<td>Workshop 2: Introducing ICOLD Bulletin 177 on Roller Compacted Concrete</td>
<td></td>
</tr>
<tr>
<td>8:00 am - 12:00 noon</td>
<td>Workshop 3: Threshold and Action Levels</td>
<td></td>
</tr>
<tr>
<td>11:30 am - 1:30 pm</td>
<td>Lunch</td>
<td>Salon A, Lower Level</td>
</tr>
<tr>
<td>1:00 pm - 5:00 pm</td>
<td>TARP Project Field Tour (extra fee)</td>
<td></td>
</tr>
<tr>
<td>1:00 pm - 5:00 pm</td>
<td>Workshop 1: Flood Consequence Estimation with HEC-LifeSim (continued)</td>
<td></td>
</tr>
<tr>
<td>1:00 pm - 5:00 pm</td>
<td>Workshop 4: Seismic Evaluation of Concrete Dams</td>
<td></td>
</tr>
<tr>
<td>1:00 pm - 5:00 pm</td>
<td>Workshop 5: Emergency Communication Primer</td>
<td></td>
</tr>
</tbody>
</table>
1A: Advocacy
Room: Salon A2
Moderators: Yulia Zakrevskaya, Stantec; and Keith Ferguson, HDR

1B: Scholarship Finalist Presentations
Room: Salon A4
Moderators: Tina (Stanard) McMartin, Freese and Nichols, Inc.; and Stuart Harris, TVA

1C: Concrete I
Room: Salon A1
Moderators: Hillery Venturini and Jerzy Salamon, Bureau of Reclamation; and David Queen and Soheil Razavi Darbar, BC Hydro

1D: Dam Safety I
Room: Salon A3
Moderators: Bruce R. Rogers, USACE; and Rafael Prieto, Gannett Fleming, Inc.

1E: Construction (General)
Room: Salon A5
Moderators: Jared Williams, Great Lakes E&I; and Susan Hou, San Francisco Public Utilities Commission

TBA

In the Exhibit Hall
*Discover the latest in products and services from top industry exhibitors
*Networking opportunities abound during breaks, lunches, and receptions
*Conference attendees can earn points and win prizes with the new USSD Gamification
*Exhibitors will compete for ‘Best in Show’ and ‘Most Creative’ awards
*USSD Pavilion is the place to meet colleagues and recharge your devices
Seepage-Induced Internal Instability Testing for Dam Safety Assessments
Paul Slangen, Geosyntec
Jonathan Fannin, University of British Columbia

Comparison of Methodologies for Evaluating Internal Erosion of Embankment Dams Using a Case Study
Clinton Carlson, Geosyntec
Wesley MacDonald, Geosyntec
Caleb Douglas, TVA

Numerical Approach to Modeling Internal Erosion in Embankment Dams and Levees
Biswajit Dasgupta, Southwest Research Institute
Gordon Wittmayer, Southwest Research Institute
Goodluck Ofoegbu, GNO Southwest Research Institute

Comparison of Methodologies for Evaluating Internal Erosion of Embankment Dams Using a Case Study
Clinton Carlson, Geosyntec
Wesley MacDonald, Geosyntec
Caleb Douglas, TVA

Study of Embankment Cracking for Small Dams
Ana Avendano, Universidad Nacional de Colombia
Guillermo Avila, Universidad Nacional de Colombia

Selection Factors and Performance of Overtopping Protection Alternatives
Jeremy Young, Schnabel Engineering
Thomas Hepler, Schnabel Engineering

Vector-Valued Hazard for Liquefaction Assessment at a Dam Site
Melanie Walling, Geosyntec

Developing Design Ground Motions for the Expansion of Gross Reservoir
Christine Weber, Stantec
Dina Hunt, Gannett Fleming

State-of-the-Art Dam-Foundation Interaction Procedure for Non-linear Arch Dam Analysis
Gurinderbir Singh Soach, Hatch
Dan Curtis, Hatch

Crossvalley Performance of Piers
Iman Ghorbani, Hatch
James Rutherford, Hatch
John Werner, Hatch
Max Mantola, Hatch
John Stanton, University of Washington

Harpreet Hansra, DRW, Division of Safety of Dams
Vojislav Cijvanovic, California DRW, Division of Safety of Dams
Ian Maki, DRW, Division of Safety of Dam

Santee Cooper
Upstream Slope Protection Project – An Owner’s Perspective
Denise Bunte-Bisnett, Santee Cooper
John Osterle, WSP

Extreme Repurposing: from Guard Wall to Cofferdam to Dam at Monongahela River Locks and Dam No. 4
Tommy Scott, D.L. National, Inc.

Evaluation and Stabilization of Steep Rock Slopes to Mitigate Rockfall Hazard during Construction
Erik Newman, AECOM
Holly Nichols, California DWR
Jennifer Dean, California DWR
Nicholas High tower, California DWR
Andrew Tate, California DWR
Jennifer Bauer, Appalachian Landslide Consultants

Roller Compacted Concrete Placed with a High Density Paver for Use as a Flood Barrier - Application to TVA Dam Husein Hasan, TVA
Quincy Anderson, Barnard Construction Company, Inc.
Aaron Nottis, TVA

Cedar Rapids, Iowa – A Second Chance for a Flooded City
Matthew Redington, HDR
Michael Butterfield, HDR

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Quincy Anderson, Barnard Construction Company, Inc.
Aaron Nottis, TVA

Cedar Rapids, Iowa – A Second Chance for a Flooded City
Matthew Redington, HDR
Michael Butterfield, HDR
<table>
<thead>
<tr>
<th>3A: Embankment Dams II</th>
<th>3B: Environment/Decommissioning</th>
<th>3C: Public Safety, Security and Emergency Management</th>
<th>3D: Dam Safety II</th>
<th>3E: Conference Theme II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Room: Salon A2</td>
<td>Room: Salon A4</td>
<td>Room: Salon A1</td>
<td>Room: Salon A3</td>
<td>Room: Salon A5</td>
</tr>
<tr>
<td>Moderators: Clinton Carlson, Geosyntec Consultants; and Chris Krage, GEI Consultants</td>
<td>Moderators: Ali Reza Firoozfar, HDR; and Glen DeWillie, Kleinschmidt Group</td>
<td>Moderators: Megan Puncke, Black &amp; Veatch; and Miguel Rocha, Bureau of Reclamation</td>
<td></td>
<td>Moderators: Seth Krause, WSP; and Andrew Verity, Terracon Consultants</td>
</tr>
</tbody>
</table>

**Numerical Evaluation of Strain-Rate Effects on Strain-Softening and Localization in Saturated Clays**
- Tyler Oathes, University of California, Davis
- Ross Boulanger, University of California, Davis

**Weak Rock Foundation Characterization From Laboratory Cyclic Testing**
- Evan Lindenbach, Bureau of Reclamation
- Richard Bearce, Bureau of Reclamation

**Determination of Material Properties for a Fine-grained Embankment**
- Foundation Layer
  - Robert Knecht, Bureau of Reclamation
  - Peter Irey, Bureau of Reclamation
- Evaluation of Earthquake-Induced Cracking of Embankment Dams
  - Lelio Mejia, Geosyntec Consultants
  - Ethan Dawson, AECOM

**Hydraulic Modeling of a Nature-Like Fishway using 2-Dimensional HEC-RAS**
- Michael Hross, Kleinschmidt
- Chris Goodell, Kleinschmidt
- Trevor Lykens, Kleinschmidt
- Jose Zayas, Cube Hydro Partners, LLC

**Retrofitting Fish Passes at Dams and Weirs: International Best Practice, Knowledge Gaps, Current Research and Foreseeable Developments**
- Marq Redeker, CDM Smith

**Dam Decommissioning in Mississippi: Maintain It or Drain It**
- Jahnathon Atkins, MS DEQ

**Dam Removal Allows Boardman River to Reclaim Natural Alignment**
- Craig Seger, Contech
- Craig Seger, Contech
- Dan Devaun, AECOM

**Making an Entrance - Security Upgrades at the Entrance to Boundary Hydroelectric Project**
- Brandon Vavrek, Seattle City Light
- Jon Gray, Seattle City Light

**Public Safety - Emergency Management in a Crisis**
- William Foos, Gannett Fleming
- Matthew Balven, Gannett Fleming

**CFD Modelling to Evaluate and Improve Public Safety Around Dams**
- Benjamin Israel Devaladson, Gannett Fleming, Inc.
- Paul Schweiger, Gannett Fleming, Inc.

**Biodynamic Responses for Evaluation of Public Safety at Dams**
- Brian Crookston, Utah State University
- Steven Barfuss, Utah Water Research Laboratory

**How to Make a Business Case to Justify Dam Safety Improvements?**
- Ali Reza Firoozfar, HDR
- Keith Moen, HDR
- Adam Jones, HDR

**Decision Making in Dam Engineering**
- Daniel Osmun, HDR
- William Fiedler, HDR

**Pilot Study for Dam Safety Considerations Related to Low Failure Probability High Consequence Facilities**
- Dam Galic, Bureau of Reclamation
- Miguel Rocha, Bureau of Reclamation

**Safety Culture - What it Is and How it Will Help Improve Dam Safety**
- Ahmad Faramarzi, Analysis Services GmbH
- Omid Amin Hariri Ardebili, Arup

**A Numerical Study of the Effect of Hysterisis on Transient Seepage Flow**
- Fred Tracy, Engineer Research and Development Center
- Maureen Corcoran, Engineer Research and Development Center

**Three-Dimensional Finite Element Analysis of Levee Through Seepage Considering End-Around Effects**
- Joseph Weber, Loyola Marymount University
- Robert Jaeger, GEI Consultants, Inc.
- Mark Stanley, HDR
- Page Hval, Loyola Marymount University

**A Numerical Study of Seismic Effects of GATE-Wall Interaction on Spillway Gates in an Existing Spillway**
- Anurag Singhal, HDR

**Seismic Fragility Relationships for Embankment Dams from Empirical Performance Data**
- Glenn Rix, Geosyntec Consultants, Inc.
- Lynnnoe Luettich, Georgia Institute of Technology

**Seismic Analysis of Concrete Arch Dams**
- Richard Armstrong, CSU, Sacramento
- Mohammad Amin Hariri Ardebili, Arup

**Testing Laboratory Cyclic Weak Rock Foundation**
- Mike Hross, Kleinschmidt
- Chris Goodell, Kleinschmidt
- Jennifer Jones, Kleinschmidt
- Trevor Lykens, Kleinschmidt

**Seismic Earth-Dam Damage Identification**
- Richard Armstrong, CSU, Sacramento
- Mohammad Amin Hariri Ardebili, Arup

**Seismic Evaluation of Reclamation for a Fine-grained Material Properties**
- Peter Irey, Bureau of Reclamation
- Richard Bearce, Bureau of Reclamation
- Ethan Dawson, AECOM

**Seismic Localization in Saturated on Strain-Softening and Strain-Rate Effects**
- Evan Lindenbach, Kleinschmidt
- Hossam Elgindy, Kleinschmidt
- Ilja Prinz, CDM Smith Europe GmbH
- Oriol Ciurana, CDM Smith Europe GmbH

**Design from Inside the Box: Developing an Innovative Temporary Closure Structure for Two USACE Dams with Numerous Design Constraints**
- Miroslav Kurka, Mead & Hunt, Inc.
- Jeffrey Anderson, Mead & Hunt, Inc.

**Increasing the Resiliency and Reducing the Carbon Footprint of Earthen Flood Defense Structures with High Performance Turf Reinforcement Mat Reinforced Vegetation**
- Drew Loizeaux, Propex Operating Company
- Randy Thompson, Propex Operating Company

**A Study on Seismic Effects of Gate-Wall Interaction on Spillway Gates in an Existing Spillway**
- Anurag Singhal, HDR

**Design Details - Concrete Chute Spillways**
- Paul Rizzo, RIZZO International, Inc.
Wednesday, April 10 — 1:30 pm - 3:30 pm
CONCURRENT SESSIONS — TRACK 4

4A: Concrete II  
**Room: Salon A2**
Moderators: Eric Kennedy, Federal Energy Regulatory Commission; and Robert Hall, USACE

Concretes for Concrete Dams  
Quentin Shaw, ARQ Consulting Engineers

Implementation of Bathymetric and LiDAR Surveys into Sliding Stability Assessment of Concrete Gravity Dams  
Tank Soich, Polytechnique Montreal  
Sylvain Renaud, Polytechnique Montreal  
Naji Bouaounani, Polytechnique Montreal  
Benjamin Miquel, Polytechnique Montreal

Fontana Dam Spillway Crack Investigation  
Michael Morrison, Tennessee Valley Authority  
James Rossillon, Tennessee Valley Authority  
Dan Curtis, Hatch Associates Consultants, Inc.

Performance-Based Assessment of Post-Tensioned Anchors in a Large Concrete Dam  
Casey Gardner, Harvey Mudd College  
Maggie Geller, Harvey Mudd College  
Andrew Pham, Harvey Mudd College  
Dana ShangGuan, Harvey Mudd College  
Flora Xia, Harvey Mudd College  
Ziyad Duron Robert Hall, Harvey Mudd College; Engineering Innovations, LLC

Application of Response Surface Meta-model in Probabilistic Analysis of Concrete Dams  
Mohammad Amin Hariri, Dasgupta, Southwest Research Institute  
Biswajit Dasgupta, Southwest Research Institute

Development of Seismic Thresholds in ShakeCast for FERC Post-Earthquake Notification, Inspection, and Damage Assessment  
Chris Wang, Federal Energy Regulatory Commission  
Edgar Salirre, Federal Energy Regulatory Commission  
Justin Smith, Federal Energy Regulatory Commission

Seismic Deformation of Different Size Embankments on a Spatially Variable Liquefiable Deposit  
Nicholas Pault, University of California Davis  
Ross Boulanger, University of California Davis  
Jason Delong, University of California Davis

Use of Horizontal to Vertical (H/V) Ambient Noise Measurements to Determine Natural Frequency of Embankment Dams  
Albert Kotkie, Pacific Gas and Electric  
Emily Steen, Pacific Gas and Electric

Lessons Learned from Re-Evaluation of the Upper and Lower San Fernando Dams Using Current State of Practice in Numerical Modeling  
Khaled Chowdhury, USACE  
Raymond Seed, University of California, Berkeley  
Vlad Perleg, AECOM  
Michael Beaty, Beatty Engineering  
Fenggang Ma, Kleinfielder George Hu, USACE

Modulus Reduction and Damping Ratio of Compacted Earth Cores of Dams  
DongSoon Park, K-water Convergence Research Institute  
Seong-Bae Jo, K-water Convergence Research Institute

4B: Earthquakes (Embankments)  
**Room: Salon A4**

Flood Model for the World-Record Rainfall from July 1942 Smethport, PA Storm — Supporting the Pennsylvania Probable Maximum Precipitation Study  
Bill Kappel, Applied Weather Associates  
Joe Bellini, Aterra Solutions

Inflow Design Flood Selection for Long Embankment Dams  
Mike Gerlach, Stantec Consulting Services Inc.  
Bob Eichinger, Stantec Consulting Services Inc.

Stochastic Framework for Flood Risk Analysis  
Siamak Esfandiar, FEMA  
Sean McNabb, FEMA  
Bob Eichinger, Stantec Consulting Services Inc.

A Holistic Evaluation of Potential Downstream Inundation for the Baker River Hydroelectric Project  
Loring Crowley, Schnabel Engineering  
Ali Tabrizi, Schnabel Engineering  
Kevin Ruswick, Schnabel Engineering  
Joshua Gile, Puget Sound Energy  
Alex Rutledge, Schnabel Engineering

Dam and Levee Break Modeling with HEC-RAS Simulation and Risk Analysis (SimRAS)  
Brent Travis, WEST Consultants, Inc.  
Chris Bahner, WEST Consultants, Inc.  
Gyan Basyal, WEST Consultants, Inc.  
Brian Wahlin, WEST Consultants

4C: Conference Theme III  
**Room: Salon A1**

Moderators: Brandan Vavrek, USACE  
Embankment Dams

Concurrence Research Study  
Seong-Bae Jo, K-water Convergence Research Institute

4D: H&H (Hydrology)  
**Room: Salon A3**
Moderators: Melinda Dirdol, Schnabel Engineering; and Prakash Om, WEST Consultants, Inc.

Case Study: Automated Movement Monitoring with Grouped AMTS in Prairie Du Sac Dam  
Raphael Victor, Sixsense Group, USA  
Loic Galisson, Sixsense Group USA  
Zhangwei Ning, Sixsense Group, USA

Implementing an Instrumentation Monitoring Program for the Staged Construction of the Red Rock Hydroelectric Project  
Thomas Andrews, Stantec  
Rachael Bissinet, Stantec  
Hannah Maas, Stantec

A Dam Innovative Solution: Cutoff Walls and Pressure Grouting at Georgia’s Richland Creek Dam  
Eloy Ramos, Nicholson Construction  
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Lessons Learned from More Than 35 Years of Cofferdam Construction  

Treating Excessive Foundation Seepage at a Dam Site in the Lower Himalayas  
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Practical Application of Seepage Analyses for Rehabilitation of Existing Dams and Levees  
Lucas Carr, Geosyntec Consultants  
Tom Cooling, AECOM  
G. Richard Bird, AECOM  
Scott Morgan, AECOM

Using Piezometer Data to Better Understand the Rehabilitation Performance of the C.W. “Bill” Young Regional Reservoir  
Jason Valeria, Gannett Fleming, Inc.  
Scott Burch, Gannett Fleming, Inc.
5A: Levees
Room: Salon A2
Moderators: Elena Sossenkina; HDR; and Adda Zekkos, University of Michigan

Hazard Potential Classification within Levee Safety Programs
Jasmine Austin, USACE
Rick Hauck, USACE

The Lower Wood River Levee Risk Informed Formulation Case History
Chris Redell, USACE

Intermittent Embankment Overtopping: Erosion Protection Options
Bryan Scholl, Watershed Geo
Brad Cooley, Watershed Geo

Levee Remediation Alternatives Analysis of a Partially Failed Rio Grande Levee in Brownsville, TX

Improving Levee Resiliency - Mitigating Failure Modes to Avoid Disasters in Great Britain and the United States
Robert Beduhn, HDR Engineering Inc.
Jonathon Simm, HR Wallingford

5B: Monitoring
Room: Salon A4
Moderators: John Hynes, Stantec; and Amanda Sutter, USACE

Case History on Monitoring Seepage on Large Zoned Embankment Dams
Thomas Solano, ISAGEN S.A. E.S.P.
Rafael Prieto, Gannett Fleming, Inc.

Phased Approach in Evaluating Existing Piezometers to Inform a Risk Assessment, Blakely Mountain Dam, Ouachita River, Arkansas
Suzanne Hess-Brittelle, USACE
Amy LeFebvre, UUSACE
Ryan Reves, USACE
Tracy Phillips, USACE

Jerry F Costello Lock and Dam Unwatering Monitoring
Lucas Krumwiede, USACE
Amanda Sutter, USACE
Sean Hibbits, USACE
Keith Thale, USACE
Samuel Ross, USACE

How Old is Too Old? Deciding When to Upgrade or Replace the Equipment in Automated Data Acquisition Systems
Daryl Jordan, Oglethorpe Power Corporation
Tim Newton, Canary Systems, Inc.
Greg Dutson, Canary Systems, Inc.
Darren Olguin, Canary Systems, Inc.
Martin Hieronymi, Brookfield Renewable
Carol Leung, Los Angeles County Public Works

Applications of Underwater Acoustic Remote Sensing
Kenneth LaBry, Underwater Acoustics International, a Division of Fenstermaker

5C: Dam Safety III
Room: Salon A1
Moderators: Mohammad Amin Hariri-Ardebili, University of Colorado; and Peter Haug, Ayres Associates

Use of Risk Assessment Information to Inform Design of Dams and Levees
Michael Sharp, USACE
Elena Sossenkina, HDR, Inc.
Noah Vroman, USACE

Managing Risk During Major Earth Fill Dam Seismic Retrofit Project
Scott Huntsman, Black & Veatch
Megan Puncke, Black & Veatch

How a Little Seepage and Minor Spillway Slab Displacement Led to Reservoir Restrictions and Remediation
Becky Allen, Kleinschmidt Associates
Keenan Goslin, Kleinschmidt Associates
Wade Osborne, Cornforth Consultants
Jeff Coffin, Kleinschmidt Associates

Simulating Spillway Gate Availability in Dam Safety Risk Studies
Gregory Baecher, University of Maryland
Robert Patev, USACE
Adiel Komey, University of Maryland

Trees on Dikes - Flood Protection Versus Ecological Landscape Planning?
Aloys Kisse, CDM Smith Consult GmbH, Bochum, Germany

The conference closing party will take place at the indoor one-acre botanical garden at historic Navy Pier. Event ticket is included with all full conference and guest registration fees.

This six-story glass atrium with a 50-foot arched ceiling holds over 80 live palm trees, lush foliage, and fountains.

A highlight of the evening will be these special announcements:
* Outstanding paper awards
* Exceptional Young Professional of the Year
* FUNds Run/Walk results

Wander through the one-acre indoor tropical garden while enjoying various Chicago-themed foods and drink. Don't forget to take your selfie in the special photo booth to capture the moment. Surprise entertainment throughout the gardens promises to make this closing party the talk of the town.

Transportation will be provided at the Chicago Hilton to and from the Crystal Garden.

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