### Sunday, April 29

<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>Hyatt Regency Lobby</td>
</tr>
</tbody>
</table>

### Monday, April 30

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:00 am - 6:30 pm</td>
<td>Registration Desk Open</td>
<td>Riverfront Hall Lobby</td>
</tr>
<tr>
<td>9:00 am - 4:30 pm</td>
<td>Committee Meetings</td>
<td>Various</td>
</tr>
<tr>
<td>5:00 pm - 6:00 pm</td>
<td>Opening Session&lt;br&gt;- Welcome and Announcements, Dean Durkee, USSD President, Gannett Fleming, Inc.&lt;br&gt;- USPD Highlights from 2017, Dean Durkee&lt;br&gt;- ICOLD Update, Michael F. Rogers, ICOLD Vice President&lt;br&gt;- Introductions and Recognitions, Dean Durkee&lt;br&gt;- Leading by Example: Incorporating Sustainable Practices into Our Nation’s Dams and Levees, Kelly Schaeffer, Kleinschmidt Associates&lt;br&gt;- Technical Operation of K-Water’s Multi-Purpose Dams and Weirs, Dr. Kyeonsik Kim, General Director, Korea Water Resources Corporation (K-Water)</td>
<td>Regency Ballroom</td>
</tr>
</tbody>
</table>

### Tuesday, May 1

<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>Riverfront Hall Lobby</td>
</tr>
<tr>
<td>7:00 am - 8:00 am</td>
<td>Continental Breakfast</td>
<td>Riverfront Hall</td>
</tr>
<tr>
<td>8:00 am - 10:00 am</td>
<td>Plenary Session&lt;br&gt;- Moderator — Christina Winckler, AECOM&lt;br&gt;- Welcome and Introductions, Dean Durkee, USSD President, Gannett Fleming, Inc.&lt;br&gt;- Lessons from the Historic 2017 Hurricane Season, Charles R. Alexander, Jr., Director of Contingency Operations and Chief, Office of Homeland Security Headquarters, USACE&lt;br&gt;- Taking Restoration to New Heights: How Local Sponsor Manages Dams and Levees in South Florida, John Mitnik, Chief District Engineer, South Florida Water District&lt;br&gt;- Special Session: Balancing Systems in an Uncertain Environment&lt;br&gt;- Role of Standards in High Risk Uncertain Environments, Eric Halpin, Deputy Dam and Levee Safety Officer and Chief, Dam and Levee Safety Engineering Branch, USACE&lt;br&gt;- A Brief History on Human Factors Awareness &amp; Training in Commercial Aviation, Christian Popp, Co-Founder, OneTeam Consulting</td>
<td>Regency Ballroom</td>
</tr>
<tr>
<td>10:00 am - 10:30 am</td>
<td>Break</td>
<td>Riverfront Hall</td>
</tr>
<tr>
<td>10:30 am - 12 noon</td>
<td>Plenary Special Session: Lessons Learned in a Year of Uncertainty&lt;br&gt;- Critical Infrastructure in Conflict: Mosul Dam Lessons, Colonel Michael J. Farrell, Commander, Mosul Dam Task Force, USACE&lt;br&gt;- Results of the Oroville Dam Spillway Incident Forensic Investigation, John W. France, Vice President, AECOM&lt;br&gt;- Addicks and Barker: The Hurricane Harvey Experience, Rob Thomas, Chief of Engineering and Construction Division, Galveston District, USACE</td>
<td>Regency Ballroom</td>
</tr>
<tr>
<td>12 noon - 1:15 pm</td>
<td>Circle of Excellence Luncheon&lt;br&gt;- Moderator — Dean Durkee, USSD President&lt;br&gt;- Presentation of the Lifetime Achievement Award&lt;br&gt;- Presentation of the Public Safety and Security of Dams Recognition&lt;br&gt;- Presentation of the Excellence in the Constructed Project Award</td>
<td>Jasmine/Hibiscus</td>
</tr>
<tr>
<td>1:30 pm - 3:00 pm</td>
<td>Concurrent Technical Sessions Track 1</td>
<td>Various</td>
</tr>
<tr>
<td>3:00 pm - 3:30 pm</td>
<td>Break</td>
<td>Riverfront Hall</td>
</tr>
<tr>
<td>3:30 pm - 5:30 pm</td>
<td>Concurrent Technical Sessions Track 2</td>
<td>Various</td>
</tr>
<tr>
<td>5:30 pm - 6:30 pm</td>
<td>USACE TownHall Meeting</td>
<td>Monroe</td>
</tr>
<tr>
<td>5:30 pm - 7:30 pm</td>
<td>Reception, Exhibition and Poster Session</td>
<td>Riverfront Hall</td>
</tr>
<tr>
<td>7:30 pm - 10:00 pm</td>
<td>Sunset over Miami Party, Celebrating our INCA Friends</td>
<td>Outside, Riverwalk Terrace</td>
</tr>
<tr>
<td>8:00 pm - 10:30 pm</td>
<td>Young Professionals Networking Social</td>
<td>Area 31, Epic Hotel</td>
</tr>
</tbody>
</table>
### Wednesday, May 2

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>6:30 am</td>
<td>5K Scholarship FUNds Run</td>
<td>Riverwalk (behind hotel)</td>
</tr>
<tr>
<td>7:30 am - 5:00 pm</td>
<td>Registration Desk Open</td>
<td>Riverfront Hall Lobby</td>
</tr>
<tr>
<td>7:30 am - 8:30 am</td>
<td>Continental Breakfast</td>
<td>Riverfront Hall</td>
</tr>
<tr>
<td>8:30 am - 10:00 am</td>
<td>Concurrent Technical Sessions Track 3</td>
<td>Various</td>
</tr>
<tr>
<td>10:00 am - 10:30 am</td>
<td>Break</td>
<td>Various</td>
</tr>
<tr>
<td>10:30 am - 12:30 pm</td>
<td>Concurrent Technical Sessions Track 4</td>
<td>Various</td>
</tr>
<tr>
<td>12:30 pm - 1:30 pm</td>
<td>The Future through Education Luncheon</td>
<td>Jasmine/Hibiscus</td>
</tr>
<tr>
<td>12:30 pm - 1:30 pm</td>
<td>USSD Gives Back: Presentation of Check to the Manifezt Foundation</td>
<td></td>
</tr>
<tr>
<td>12:30 pm - 1:30 pm</td>
<td>Announcement of 5K FUNds Run Winners</td>
<td></td>
</tr>
<tr>
<td>12:30 pm - 1:30 pm</td>
<td>Announcement of 2018 Scholarships</td>
<td></td>
</tr>
<tr>
<td>1:30 pm - 3:00 pm</td>
<td>Concurrent Technical Sessions Track 5</td>
<td>Various</td>
</tr>
<tr>
<td>3:00 pm - 3:30 pm</td>
<td>Break</td>
<td>Riverfront Hall</td>
</tr>
<tr>
<td>3:30 pm - 5:30 pm</td>
<td>Concurrent Technical Sessions Track 6</td>
<td>Various</td>
</tr>
<tr>
<td>5:30 pm - 10:30 pm</td>
<td>Miami Marlins Baseball Game and Private Party</td>
<td>Marlins Park</td>
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#### Thursday, May 3

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<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
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<tbody>
<tr>
<td>7:30 am - 5:00 pm</td>
<td>Registration Desk Open</td>
<td>Riverfront Hall Lobby</td>
</tr>
<tr>
<td>8:30 am - 11:45 am</td>
<td>Concurrent Workshops</td>
<td>Orchid B, Tuttle, Flagler, Monroe, Brickell</td>
</tr>
<tr>
<td>8:00 am - 12 noon</td>
<td>1. Everglades Restoration</td>
<td></td>
</tr>
<tr>
<td>8:00 am - 4:00 pm</td>
<td>2. Words Hold Water - Raising the Communication Bar in the Dams and Levees Industry</td>
<td></td>
</tr>
<tr>
<td>8:00 am - 5:40 pm</td>
<td>3. Evaluation of Numerical Models and Input Parameters in the Analysis of Concrete Dams</td>
<td></td>
</tr>
<tr>
<td>8:30 am - 5:30 pm</td>
<td>4. Construction of Cutoff Walls for Levees and Small Embankment Dams</td>
<td></td>
</tr>
<tr>
<td>8:00 am - 5:30 pm</td>
<td>5. Cutting-Edge Rapid Flood Modeling: Hands-On with DSS-WISE™ Lite</td>
<td></td>
</tr>
<tr>
<td>11:30 am - 1:00 pm</td>
<td>Buffet Lunch for Workshop and Field Tour Participants</td>
<td>Riverfront South/Central</td>
</tr>
<tr>
<td>12:30 pm - 5:30 pm</td>
<td>Field Tour: Tamiami Trail</td>
<td>Hotel Lobby Entrance</td>
</tr>
</tbody>
</table>

### Friday, May 4

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00 am - 6:00 pm</td>
<td>Field Tour: Herbert Hoover Dike</td>
<td>Hotel Lobby Entrance</td>
</tr>
</tbody>
</table>

**Important Field Tour Information:** For both the Thursday afternoon tour, and the Friday tour, motorcoaches will depart from the front entrance of the Hyatt. Please gather in the lobby 15 minutes prior to departure. On each day, one motorcoach will return via Miami International Airport to drop off passengers for flights departing after 7:30 p.m. If you wish to be dropped at the airport, please stop by the USSD registration desk before noon on Wednesday.
**1A: Conference Theme – Sustainability**  
*Room: Monroe*

Moderators: Nicholas Morgan and Kelly Schaeffer, Kleinschmidt Associates

**Benefits of Using Existing Dams for Flood Mitigation in the Moodna Creek Watershed, Orange County, NY**  
Allen Estivalet, Gregory Shafer and Michelle Bowen, WSP

**Ecosystem Considerations in Dam Safety Inspection and O&M**  
Jonathan Keeling and Benjamin Webster, Stantec

**The Many Lives of the Hillsborough River Dam, Tampa, FL**  
Stewart Vaghti, Gannett Fleming, Inc.; John Raison, City of Tampa; and Tom Burke, Southwest Florida Water Management District

**An Evaluation of the Capacity of Coastal Spillways under Projected Sea Level Rise and Storm Surge Conditions**  
Mark Wilsnack and Lichun Zhang, South Florida Water Management District

**Analysis of Performance Based Testing of Lower Baker Dam**  
Gurinderbir Sooch and Dan Curtis, Hatch; Ziyad Duron, Harvey Mudd College; Michael Likavek, Puget Sound Energy; and Larry Nuss, Nuss Engineering, LLC

**Williams Fork Dam: Methods to Better Understand Seismic Behavior – Part II**  
Aimee Corn, Guy Lund and Alex Walsh, Gannett Fleming; and Erin Gleason and Darren Brinker, Denver Water

**New Insights into Seismic Design and Safety Evaluation of Dam Appurtenant Structures and Equipment**  
Najib Bouaanani, Polytechnique Montreal

**Gross Dam - Raising Sigma to the 10,000 Year Return Period**  
Dina Hunt, Gannett Fleming, Inc.; and Christine Weber, Stantec

**Erosion Protection for the Emergency Spillway at Oroville Dam**  
Franz-Werner Gerressen, BAUER Maschinen GmbH; and Brett K. Manier, Drill Tech Drilling & Shoring, Inc.

**The Oroville Dam Crisis: Warning and Human Response**  
Jason Needham, USACE; Dennis Miliate, University of Colorado, Boulder; and John Sorensen, Oak Ridge National Laboratory (Retired)

**Emergency Response Monitoring for Oroville Spillway**  
Kayla Ramney, Jaime Lubeck and Daniel Osmun, HDR; and Olivia Virgadamo, California Department of Water Resources

**Oroville Update**  
Jeanne Kuttler, Department of Water Resources; and David Gutierrez, GEI Consultants

**Conclusions from Evaluation of Tailings Dam Incidents**  
Clint Strauchan and Brenna Van, Stantec

**USD Workshop Summary: Lessons Learned from Recent Tailings Dam Failures and Path Forward**  
Robert Snow, D’Appolonia Engineering; Amanda Adams, Stantec; Gregory Hebeler, Golder Associates, Inc.; and Phillip Crouse, Stantec

**When a CCR Impoundment is Not a Tailings Dam**  
Robert Bachus, Geosyntec Consultants; and Robert Snow, D’Appolonia Engineering

**Numerical Analysis of Displacements in the Post-Exploitation Period of Tailings Dams with a Combined Construction Method**  
Ljupcho Petkovski and Stevcho Mitovski, University of Arkansas and Methodius

**Argonaut Dam Remediation**  
Richard Millet, Rekha Nanduri and Nick Plath, AECOM; and Tami Trearse, California Department of Toxic Substances Control

**Selecting a Geomembrane System for a Lined Embankment Dam and Reservoir Project**  
Chad Hoover, Paul Schweiger, Trent Dzure and Cari Beennenga, Gannett Fleming, Inc.; and Anthony Nakovich, American Water Company

**Raw Water Storage Impoundment on Critical Path for Savannah Harbor Expansion Project**  
Stephen Whiteside, CDM Smith, Danielle Neamtu, Shyanne Wood and Robert Nogel, CDM Smith; and Nathan Bryan, USACE

**Defect Seepage Modeling**  
Mike McCaffrey, Kevin Finn, Paul Shiers and Peter Bouchie, WSP

**Bel Air Impoundment – Do All Dams Need a Drain?**  
Joanna Safford and Cari Beennenga, Gannett Fleming, Inc.; John Roche, MDI Dam Safety Division; and Anthony Nakovich, American Water Company

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**Short presentations** will be highly focused presentations of 8-10 minutes.  
**Long presentations** will vary in length from 15 to 30 minutes, depending on the number of presentations in the track.
**2A: Reservoir Sediment Management**

**Room: Monroe**

Moderators: Daniel Pridal, USACE; and Martin Teal, WEST Consultants, Inc.

- Review of the Reservoir Sedimentation Information (RSI) Database and Inventory of Known Sediment Issues at USACE Reservoirs
  - Paul Boyd, Bryant Baker and Rachel Schultz, USACE

- A Comparison of Reservoir Storage Capacity and Sediment Depletion
  - Daniel Pridal and Paul Boyd, USACE

- Sediment Dredging of Reservoirs for Long-Term Sustainable Management
  - Timothy Randle, Bureau of Reclamation; Stanley Ekren, William Hanson and Robert Ramsdell, Great Lakes Dredge & Dock Company, LLC

- Three-Dimensional Evaluation of Bathymetric Change and Sediment Infill in a Hydropower Reservoir
  - Mark Velleux, James Hallden, Ruta Rugabandana and James Fitzpatrick, HDR

**2B: Earthquakes – Bimodal Nonlinear Parameters for Two-Dimensional Nonlinear Seismic Response Analysis of a Concrete Gravity Dam**

- Omar Fenner, Jeff Yathin, Brent Bergman, Soheil Razavi-Barbar and David Queen, BC Hydro

- Nonlinear Seismic Analysis of an Arch Dam
  - Gurinderbir Sooch and Dan Curtis, Hatch; and Toby Brewer, Tacoma Power

**2C: Construction – River Diversions**

**Room: Tuttle**

Moderators: Vik Iso-Ahola, Stantec; and Phoebe Percell, HDR

- Predicting Dam Response to Seismic Loading Conditions Using Performance Based Testing
  - Ziyad Duron and Maggie Gelber, Harvey Mudd College

- A Systems-Based Characterization of Foundation Interaction Effects in Concrete Dams
  - Ziyad Duron and Kristin Lie, Harvey Mudd College

- Earthquake Analysis of Concrete Dams, including Dam-Water-Foundation Interaction
  - Amikell Lakte, Norwegian University of Science and Technology; and Anil Chopra, University of California, Berkeley

- Considerations Regarding Analysis Parameters for Two-Dimensional Nonlinear Seismic Response Analysis of a Concrete Gravity Dam
  - Jeffery Wisniewski and Jeffrey Allen, HDR

- Design and Construction of the New Folsom Dam Spillway
  - Michael Forrest, AECOM; Michael O’Sullivan, COWI; Kylan Kegel, USACE; and Jeffrey Wisniewski, HDR Inc.

- Ensuring Dam Safety without a Spillway during Construction at Anderson Dam
  - Brian Getttinger, Black & Veatch; Chuck Anderson, Schaff & Wheeler; Jack Xu and Victor Gutierrez, Santa Clara Valley District; and Emily Schwartz, Black & Veatch

**2D: Foundations**

**Room: Miami Lecture Hall**

Moderators: Jeff Hill, Hayward Baker; and Andrew Verity, Terracon

- Addressing Site Specific Challenges by Staged Construction of the Red Rock Hydroelectric Project
  - Rachael Bissett, Thomas Andrews and Nathaniel Grossmann, Stantec

- Cellular Cofferdams as Permanent Hydropower Dam Structures
  - Marte Gutierez Co and Simon Heru Prasetyo, Colorado School of Mines

- Not Giving Up Hope – Third Time’s the Charm with Hope Mills Dam
  - Corey School, Mark Landis and Aaron, Collins, Schnabel Engineering

- The Life and Death of TED (The Temporary Embankment Dam at the New Folsom Dam Auxiliary Spillway)
  - Jeffrey Wisniewski and Jeffrey Allen, HDR

- Final Results of 3D Geologic Modeling at Boundary Dam: from Abutment Stability to Rock Block Stabilization
  - Robert Cannon, Fred Snider, Gary Rogers and J. Hawkins Gagnon, Schnabel Engineering; Kimberly Pate and Andre Boll, Seattle City Light

- A Comparison of Barrier Wall Types and Methods for Controlling Seepage through Embankment Dams and Levees
  - Joseph Kula, Arcadis; Gianfranco Di Cicco, GCD Consulting, LLC; and Timothy Newton, Arcadis

**2E: Dam Safety I**

**Room: Brickell**

Moderators: Najib Bouaanani, Polytechnique Montreal; and Emily Schwartz, Black & Veatch

- Using Semi-Quantitative Risk Assessment to Allow Safe Storage in a Reservoir
  - Jesse Drayton, AECOM; Warren Wade, Fort Carson Directorate of Public Works; Andrew Barry, USACE; and Dan Poulter, AECOM

- Remote Sensing Inventory of Previously Undocumented Dams
  - Dan Schmutz, Danny Gooding and Valerie Habal, Greenman-Pedersen, Inc.; and Art Sengupta, Florida Department of Environmental Protection

- Evaluating Leakage Through the Rock-Filled Juranah Dam
  - Kirk Lowery, Arcadis U.S., Inc.

- Risk Informed Design of Large Concrete (RCC) Dams in High Seismic Hazard Region
  - Keith Ferguson, Keith Moen, Dan Osmun, Farzad Abzadeh and Scott Anderson, HDR Engineering, Inc.

- Balancing Risk and Resource Values at Grama Dam & Comanche Dam

- South Bay Seismic Retrofits: Project Updates
  - Megan P芬cke and Patrick Allen, Black & Veatch; and Victor Gutierrez and Bal Ganjo, Santa Clara Valley Water District

**2F: Levese I**

**Room: Orchid BCD**

Moderators: Danielle Neamtou, CDM Smith; and John Rice, Utah State University

- Characterizing the Reliability of Earthen Levees using System Response Curves Derived from Uncertainty Analysis of Geotechnical Simulation Models
  - Martin Schultz, Fred Tracy, Ghada Ellithy, Danny Harrelson, Jodi Ryder and Maureen Corcoran, USACE

- Critical Poor Level for Drawdown Analysis of Earth Embankment Dams
  - Krishna Shadokopan and Joseph Kula, Arcadis

- Reliability Underseepage Assessment of Levese Incorporating Geomorphic Features
  - Lourdes Polanco Boulware and John Rice, Utah State University

- Parametric Study of Levee Saturation for Undrained Rapid Drawdown Analysis
  - Kalie Poston, Prince Turner and Daniel VandenBerge, Tennessee Tech University

- Transient SEE2PD for Finite Element Seepage Modeling of Levees with Enhanced Features
  - Fred Tracy, Lucas Walsh and Maureen Corcoran, USACE

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**Long Presentations (15-30 minutes)**

**Short Presentations (8-10 minutes)**

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**Tuesday, May 1 • 3:30 pm to 5:30 pm**

**CONCURRENT SESSIONS TRACK 2**
Wednesday, May 2 • 10:30 am to 12:30 pm

CONCURRENT SESSIONS TRACK 4

4A: Earthquakes - Embankments II
Room: Monroe
Moderators: Jennifer Donahue, JLD Engineering; and Larry Nuss, Nuss Engineering

4B: H&H – Dam Break and Reservoir Modeling
Room: Tuttle
Moderators: Greg Paxson, Schnabel Engineering; and Jennifer Gagnon, HDR

4C: Construction - Rehabilitation I
Room: Flagler
Moderators: Jesse Knopel, WSP; and Vinod Batta, SNC-Lavalin

4D: Conference Theme – Water Quality and Supply
Room: Miami Lecture Hall
Moderators: Zach Whitten, Stantec

4E: Dam Safety III
Room: Brickell
Moderators: Elizabeth Landowski, Garnett Fleming; and Rachael Bisnett, Stantec

4F: Levees II
Room: Orchid BCD
Moderators: Steve Whiteside, CDM Smith and Meredith Beswick, Kleinfelder

Dynamic Deformation Analysis for the Candelaria Rockfill Dam: Constitutive Model Matters
Tiffany Adams, Masood Kafash, and Richard Davidson, AECOM; and Scott Lehman, Lundin Mining Corporation

Seismic Risk Screening of Embankment Dams
Chris Hunt, Glenn Rix, Zahra Amini and David Umberg, Geosyntec Consultants; and Jennifer Donahue, JL Donahue Engineering, Inc.

Soil Strength Measurement over a Range of Strains for Embankment Dam Deformation Modeling
Robert Rinehart and Blake Armstrong, Bureau of Reclamation

Fragility Curves for Hardfill Dams under Seismic Loading
Juan Mayoral and Adriana Badillo, UNAM

Case Studies of Rapid Dam Breach Modeling during Flood Events
Wesley Crosby, USACE

Influence of Breach Parameter Uncertainty on Dam-Breach Flood Modeling and Mapping with DSS-WISE™ Lite
Mustafa Altunakar, Marcus McGrath and Vijay Ramalingam, NCCH, the University of Mississippi; and James Denby, FEMA

Probabilistic Dam Breach Modeling Using HEC-RAS and McBreach: Corps Water Management System Implementation and Applications in Mobile District of USACE
Christopher Goodell, Suzanne Monk and Aaron Lee, WEST Consultants; Roger Raeburn and Amit Karki, PacificCorp; and Doug Johnson, FERC

Rapid Response Flood Inundation Modeling of a Compromised Coastal Levee System during Hurricane Season
Alex Nelson, Alex Urban, and Corby Lewis, USACE

When a 2-Dimensional Dam Breach Model Leads to Floodplain Revisions, Risk Informed Urban Re-Development, and Green Infrastructure Improvements
Kevin Ruswick and Gregory Dovier, Schnabel Engineering; and William Simcoe, City of Albany

Corps Water Management System Implementation and Applications in Mobile District of USACE
Bailey Crane, USACE; and Henry Hu, WEST Consultants, Inc.

Challenging “About-Face” for Courtright Dam
Scott Huntsman, Black & Veatch Corporation

Embankment Piping Repair
Seth Krause, Mike McCaffrey, Paul Shiers and Olga Zabawa WSP

Rehabilitation of Kebar Dam, the World’s Oldest Masonry Dam under Operation
Hassan Morshedian, Black & Veatch; and Habib Leylavi, Kamandab Consultant Engineering Co.

How to Evaluate Prestressed Legacy Anchors in Dams
Donald Bruce, Geosystems, L.P.; John Wolfehope, Freese and Nichols, Inc.; and Chris Hayes, CEATI International

Balancing Costs and Benefits: Value Engineering of Native American Dams Throughout the United States
Matthew Young and William Shuter, U.S. Bureau of Indian Affairs; and Allison Knoak, MBS, LLC

Using Soil-Cement to Construct an Overtopping Gravity Dam
Pete Nix and Steven Riedy, Tetra Tech

Tidal Tributary Restoration by Modification of Salinity Control Structures
Scott Deitch, GP; Ed Sherwood, Tampa Bay Estuary Program; and Nancy Norton and Lizanne Garcia, Southwest Florida Water Management District

A View from the Trenches – Lessons Learned Planning and Permitting New Water Storage Projects
Blaine Dwyer, HDR

Boundary Dam TDG (Total Dissolved Gas) Analysis Using CFD Model (FLOW-3D)
John Wendelbo, Flow Science, Inc.; and Nikou Jalayeri and Joe Groeneveld, Hatch

Environmental Recovery from Siltation and Dam Failures along St. Vrain Creek, Colorado
Richard Tocher and Clint Brown, Engineering Analytics; and Jesse Rounds, Boulder County Parks and Open Space

Getting out of the Rough: Designing and Constructing Above Ground Impoundments to Suit Florida’s Water Quality and Supply Needs
Richard LeBlanc, HDR

Proactive Thinking in Dam Safety
Matthew Baiven and Dean Durkee, Garnett Fleming

Nepal Dam Safety Inspections and Insights: James Rutherford, Richard Donnelly and Peter Rodriguez, Hatch; Bill Moler and Charly Cadou, Manatoba Hydro International; Rajeswar Man Sulpya, TMS; and Pravin Karki, World Bank Group

The Use of Probabilistic Techniques to Supplement Deterministic Dam and Levee Design Methodologies
Scott Burch and Jason Valeria, Garnett Fleming, Inc.

Integrating Dam Safety Risk into a Traditional Dam Design Project
Derek Morley, USACE

The Big F-N Plotting Style: Right for Every Organization?
Dan Galic, Bureau of Reclamation

Moving Towards Risk Informed Design Standards for Dams and Levees
Eric Halpin and Nate Snorteland, USACE

Backward Erosion Piping Flume Tests for Magnolia Levee
Axel M. Montalvo-Bartolomei, Erica A. Medley, Benjamin R. Breiland and Bryant A. Robbins, USACE

Comparing Erodibility Measurements from JET Method to those from Experimental Levee Break Tests of Cohesive Soils
Ali Aghari Tabrizi, Schnabel Engineering; and M. Hani Chaudhry, University of South Carolina

Evaluating Unpermitted Encroachments in Levee Systems
Kevin Severson, Cornforth Consultants, Inc.; Colm Rowan, Multnomah County Drainage District; and Michael Meyer, Cornforth Consultants, Inc.

Design and Construction Challenges for Offstream Reservoir Earth Dam and Embankment Seepage Systems
Randall Bushey, Jacobs

Cost Effective Geotechnical Engineering Design through Independent Review
Ray Martin, Roy E. Martin LLC; George Sils, Geotechnical Engineering Consultant; David Williams, David T. Williams and Associates; and Eric Nagy, Larsen Wurzel & Associates, Inc.

Long Presentations (15-30 minutes)

Short Presentations (8-10 minutes)
5A: Earthquakes - Embankments III
Room: Monroe
Moderators: Zahra Amini, Geosyntec Consultants; and Karen Ford, GEI Consultants

Dynamic Behavior of CFEDs Subjected to Strong Seismic Excitation and a Case Study
Hasan Tosun, Eskisehir Osmangazi University and Dam Safety Association, Turkey

Site Characterization and Seismic Stability Analysis of Stone Canyon Dam
Ethan Dawson, Nesa Nesarajah, Dennis Nguyen, Wolfgang Roth and Christopher Goetz, AECOM; and Jianping Hu

Seismic Evaluation of Electric Lake Dam Using Two-Dimensional and Three-Dimensional Methods
Masood Kafash, Tiffany Adams, Jennifer Williams, and Ethan Dawson, AECOM; and Roger Raeburn, PacificCorp

5B: H&H – Spillway Modeling
Room: Tuttle
Moderators: Blake Tullis, Utah Water Research Laboratory; and Brandon Vavrek, Seattle City Light

Why CFD Modelling Should Be a Spillway Designer’s Best Friend
Benjamin Israel Devadason and Paul Schweiger, Gannett Fleming, Inc.

Applications of CFD at Hydraulic Structures in Select Levees in South Florida
Matalal Ansar and Jie Zeng, South Florida Water Management District

Developing Hydraulic Design Criteria for a Fusegate Semi-Labyrinth Weir Using 2D and CFD Models at Duke Energy’s-Cedar Cliff Hydroelectric Development
Adrian Strain and Joel Bilodeau, HDR; and John Eddy and Brad Keaton, Duke Energy

Physical Modeling of Air Demand at Cedar Cliff Dam
Dan Gessler, Andy Johannson and Chris Miller, Alden Research Laboratory, Inc.; John Eddy and Brad Keaton, Duke Energy; and Hasan Kocahan, Hydroplus

CFD Modelling of Piano Key Weirs: Validation and Numerical Parameter Space Analysis
John Wendelbo and Brian Fox, Flow Science

Size-Scale Effects and Piano Key Weir Hydraulics
Blake Tullis, Utah State University; and Nathan Young, Schnabel Engineering

5C: Construction – Rehabilitation II
Room: Flagler
Moderators: Scott Korab, Ballard Marine; and Del Shannon, Barnard Construction

An Update on La Romaine Complex, the Most Important Hydroelectric Project Under Construction in North America
Vlad Liviu Alicescu, Hydro Quebec

C.W. Bill Young Regional Reservoir Rehabilitation Project
Joanna Scafford and Elizabeth Landowski, Gannett Fleming, Inc.

Design and Construction of the Oakdale Spillway
Manohree Sundaram and Jason Hedien, Stantec; and Justin Darling, NIPSCO (Northern Indiana Public Service Company)

Swan Lake Dam Raise
Randy Presleigh, McMullen Jacobs Associates

5D: Environment: Habitat and Species
Room: Miami Lecture Hall
Moderators: Denise Bunte-Bisnett, Santee Cooper; and Blaine Dwyer, HDR

Decision Making for Ecological Habitat Restoration at Decommissioned Ash Impoundments
Nicholas Morgan, Kleinschmidt; and Steve Cahoon, Duke Energy

Can Raptors Protect Levees Better than Rodenticides?
Karl Novak and David Torfeh, Ventura County Watershed Protection District

Considerations for Wildlife During Design, Construction and Operation of the C-44 Project
Susan Ray, HDR

Fish Passage Facilities at the Alameda Creek Diversion Dam, Final Design and Construction Update, California
Karl Tingwald, AECOM; Yen Ng, Susan Hou and Bryan Dessaire, San Francisco Public Utilities Commission; Mike Garelo, HDR Engineering; and Sam Gambino, AECOM

5E: Concrete
Room: Brickell
Moderators: Jerzy Salamon and Hillery Venturini, Bureau of Reclamation

Discussion on the Application of Advanced Finite Element Technology to Dam Engineering
Mohammadreza Mostafa and Vik Iso-Ahola, Stantec

Uncertainty Quantification in Probabilistic Assessment of Concrete Dams: Cloud Analysis
Mohammad Amin Harir-Ardibilian and Victor Saouma, University of Colorado Boulder

Research Needs for Concrete Dams
Robert Hall, Engineering Innovations, LLC; Larry Nuss, Nuss Engineering, LLC; and Ziyad Duron, Harvey Mudd College

Concrete Tensile Strength Derived from Direct and Splitting Tests from Existing Dams
Dan Curtis and Gurinderbir Sood, Hatch; and Husein Hasan and Justin Long, Tennessee Valley Authority

Concrete Lift Line Shear Strength Parameters Compared to Other Laboratory Determined Properties
Evan Lindenbach, Bureau of Reclamation

5F: Floods
Room: Orchid BCD
Moderators: Lynette Cardoch, HDR; and Maureen Corcoran, USAACE

Harvey Rainfall and Probable Maximum Precipitation—What Happened and How Does it Compare
William Kappel, Applied Weather Associates

San Antonio River Authority, Case Study
Wayne Tschirhart, San Antonio River Authority

Lessons Learned from Midwest Floods 2008 and 2011 – Community Approach to Rebuilding Flood Risk Reduction Infrastructure
Bob Beduhn, HDR

Netherlands Approach to Flood Control, Including Room for the River Program – Policies and Implementation Challenges
Cees Henk Oostinga and Robert M. Slomp, Rijkswaterstaat Centre for Water Management

Risk Transfer Issues and Insurance and Finance Solutions for Dam and Levee Safety
Samantha Medlock, Willis Towers Watson

Long Presentations (15-30 minutes)

Short Presentations (8-10 minutes)
Wednesday, May 2 • 3:30 pm to 5:30 pm
CONCURRENT SESSIONS TRACK 6

1. PUBLIC SAFETY AROUND DAMS
Panel Discussion:
Statistics of Public Safety Incidents at U.S. Dams in 2017
Paul Schweiger, Gannett Fleming; and Alton Echols, Toronto Water

2. EMERGENCY PREPAREDNESS
Panel Discussion:
Balancing Dam Safety Risk Communication and Stakeholder Engagement
Edward Slawski, USACE

3. EMERGENCY RESPONSE LESSONS LEARNED
Panel Discussion:
Practicing for a Hurricane - A Case Study
Lauri Shearin-Feimster and Michael Gabor, FEMA

4. LEVEES III
Panel Discussion:
Evaluating Levees
Scott Raschke, SAGE Engineers

Long Presentations (15-30 minutes)

Short Presentations (8-10 minutes)

Dams and Reservoirs
Moderators: William Foos, Gannett Fleming; and Paul Meeks, Worthington Products, Inc.

Dams and Reservoirs
Moderators: Jennifer Bountry, Bureau of Reclamation; and Kevin Schneider, Barnard Construction

Subcommittee on Sedimentation Dam Removal Analysis Guidelines for Sediment Management
Jennifer Bountry and Timothy Randle, Bureau of Reclamation

Large Dam Removals for Renewal of the Klamath River
Tom Hepler, Schnabel Engineering; Seth Gentzler and John Rodgers, AECOM; and Ben Swann, CDM Smith

Efforts to Restore a Unique Place on the Rocky River
Robert Ingham and Aaron Collins, Schnabel Engineering; Angela Allen, Wildlands Engineering; and Chris Flowers, Unique Places, LLC

Understanding Sediment in Dam Removal
Brinton Swift, HDR Engineering

Picking Up Both Ends of the Stick: How New Technology Increases Economic, Social, and Environmental Sustainability
Shawn Dustin, Geocomp

Satellite InSAR as an Initial Health Assessment Tool for Dams and Reservoirs
El Hachemi Bouali, Thomas Oomen and Rudiger Escobar Wolf, Michigan Technological University; and Ajinkumar KS, University of Kerala

Success and Failure of Instrumentation Programs
Paul Schweiger, Robert Saber and David Wilson, Gannett Fleming, Inc.; and Marc Brooks and Alexander Michalski, New Jersey Water Supply Authority

Structural Vibrations: Simple Approach to Surveillance, Monitoring, and Understanding
Jeff Drager, Northern Water Supply Authority; and Justin Stirling, Northern Water Supply Authority

Demonstration and Validation of Nondestructive Testing Method for Measuring Forces in Post-Tensioned Truss
Robert Busch, Geopsytec Consulting; and Allen Cadden, Schnabel Engineering

Using Reservoir Level vs. Piezometric Measurements (R-P Plots) to Evaluate Potential for Backward Piping Erosion
Richard Olsen, USACE

Learning from the Past: Historic Dam & Levee Failures and Near-Failures in Florida
Scott Burch, Gannett Fleming, Inc.

Risk Analysis Methodologies for Evaluating Urbanized Canals
Chris Ellis, Bureau of Reclamation

Risk Informed Modification Study of Complex Levee Systems: Lower Wood River Case History
Jose Lopez, USACE

Risk Analysis of Vegetation on Levees
Lawrence Roth, Arcadis

Shallow Water Lidar System for Overtopping Breach Measurements
Ghada Elittity, USACE

Risk Assessment of I-Walls on Levees
Michael Sharp, Noah Vroman and Brad Arcement, USACE

Orovile Spillway Incident: A Unified Response
Randy Fessler, California DWR

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