

Federal Government

May 26, 2022

- 9:00 Welcome**
Keynote Speaker and Moderator: Dr. Enrique Matheu
- 9:10 State of the Nation's Dams**
Ms. Phoebe Percell, Chief, USACE Dam and Levee Safety
- 9:40 Public Protection Guidelines Update**
Mr. Dom Galic, Technical Risk Advisor, Bureau of Reclamation
- 10:10 Break**
- 10:20 Dam Safety Risk**
Mr. Nate Snorteland, Director, USACE Risk Management Center
- 10:50 Lessons Learned From 2020 Edenville and Sanford Dam Failures**
Mr. Paul Shannon, Washington Office Chief, FERC Division of Dam Safety & Inspections
- 11:20 Break**
- 12:00 Design Overview for the Isabella Lake Dam Safety Modification Project**
Mr. Mike Ruthford, Isabella Dam Technical Lead, USACE SPD-DSPC
Mr. David Serafini, Lead Engineer, Geosciences Branch Chief, USACE SPD-DSPC
- 12:30 Rehabilitation of the Main Dam for the Isabella Lake Dam Safety Modification Project (DSMP)**
Mr. Carlos Hernandez, Project Engineer, USACE Isabella Lake Dam Resident Office
- 1:00 Break**
- 1:10 B.F. Sisk Dam/San Luis Reservoir**
Ms. Katherine Strozinski, Dam Safety Program Manager, Bureau of Reclamation
- 1:40 Risk Communication—Rapid Inundation Tool (RIM)**
Mr. Ed Stowasser, Hydraulic Engineer, USACE Dam Safety Modification Center of Expertise
- 2:20 National Levee Safety Program**
Ms. Tammy Conforti, USACE Special Assistant for Levee Safety
Mr. Michael Bachand, Technical Manager, USACE National Levee Safety Program

Federal Government Schedule

May 26, 2022

9:00 Welcome

Keynote Speaker and Moderator: Dr. Enrique Matheu

Introduction to the day's events and housekeeping notes.

9:10 State of the Nation's Dams

Ms. Phoebe Percell, Chief, USACE Dam and Levee Safety

An overview of dams and levees in the United States and information on improving them.

9:40 Planned Updates to Dam Safety Public Protection Guidelines

Mr. Dom Galic, Technical Risk Advisor, Bureau of Reclamation

Background on the history and purpose of the Bureau of Reclamation's Public Protection Guidelines (PPG), and an overview of the motivation for and substance of the ongoing PPG update.

10:10 Break

10:20 Dam Safety Risk

Mr. Nate Snorteland, Director, USACE Risk Management Center

Dam safety risk management process and industry standards.

10:50 Lessons Learned From 2020 Edenville and Sanford Dam Failures

Mr. Paul Shannon, Washington Office Chief, FERC Division of Dam Safety & Inspections

A brief review of the Edenville and Sanford Dam Failures which occurred in May 2020 and the major findings regarding Human Factors from the recently completed Independent Forensic Team Report.

11:20 Break

(continued on next page)

12:00 Design Overview for the Isabella Lake Dam Safety Modification Project

Mr. Mike Ruthford, Isabella Dam Technical Lead, USACE SPD-DSPC

Mr. David Serafini, Lead Engineer, Geosciences Branch Chief, USACE SPD-DSPC

An overview of the Isabella Lake Dam Safety Modification Project (DSMP). The presentation will include an overview of the potential failure modes, the design of dam safety features, and an overview of the Construction Phase.

12:30 Rehabilitation of the Main Dam for the Isabella Lake Dam Safety Modification Project (DSMP)

Mr. Carlos Hernandez, Project Engineer, USACE Isabella Lake Dam Resident Office

The U.S. Army Corps of Engineers (USACE) requires comprehensive investigation, design, and construction phases for the rehabilitation of earth and rock-fill dams. This presentation provides an overview of various construction activities performed during the rehabilitation of the Main Dam for the Isabella Lake Dam Safety Modification Project (DSMP).

1:00 Break

1:10 B.F. Sisk Dam/San Luis Reservoir

Ms. Katherine Strozinski, Dam Safety Program Manager, Bureau of Reclamation

Background of the Dam Safety Program mission, modification features, and project implementation schedules.

1:40 Risk Communication—Rapid Inundation Tool (RIM)

Mr. Ed Stowasser, Hydraulic Engineer, USACE Dam Safety Modification Center of Expertise

The Modeling, Mapping, and Consequences Production Center (MMC) has developed an innovative mapping tool utilizing a robust inventory of existing hydraulic models. The Rapid Inundation Mapping (MMC-RIM) tool uses a library of stored inundation maps for multiple flood profiles to help users build an event-specific inundation picture for an entire watershed.

2:20 National Levee Safety Program

Ms. Tammy Conforti, PE, USACE Special Assistant for Levee Safety

Mr. Michael Bachand, Technical Manager, USACE National Levee Safety Program

Information on development of the National Levee Safety Program, key program components, and a preview for what's next for the program.

Dr. Enrique Matheu, PhD, Executive Director, USACE Director of Research and Development

Keynote Speaker and Moderator



Dr. Enrique Matheu serves as the senior advisor to the Director of Research and Development, supporting the development of policy and strategies for research and development for USACE's civil works and military programs and fostering the implementation of science and technology innovations across the USACE enterprise. He holds a B.S. degree in Civil Engineering from the National University of Córdoba, Argentina; a M.S. degree in Civil Engineering from the University of Puerto Rico at Mayagüez; and a Ph.D. in Engineering Mechanics from Virginia Tech. Dr. Matheu has authored and co-authored more than 100 technical publications.

State of the Nation's Dams

Ms. Phoebe Percell, PE, Chief, USACE Dam and Levee Safety Branch



Phoebe Percell is the Chief, Dam and Levee Safety Branch, Engineering and Construction Division, USACE HQ. She also serves as the Deputy Dam and Levee Safety officer for USACE. She previously worked for HDR and spent 17 years at the Bureau of Reclamation. Ms. Percell received bachelor degrees in Civil Engineering and Mechanical Engineering, and a Master's Degree in Structural Engineering, all from the Colorado School of Mines. She is a Registered Professional Engineer in Colorado and has served in leadership roles with the US Society of Dams (USSD).

Public Protection Guidelines Update

Mr. Dom Galic, PE, PhD, Technical Risk Advisor, Bureau of Reclamation



Dom Galic currently serves as the Technical Risk Advisor for the TSC Geotechnical Services Division. He has been with the Bureau of Reclamation since 2008 and a risk analysis facilitator since 2011. Dom has a doctoral degree in Geotechnical Engineering from the University of California, Berkeley. He is a registered Professional Engineer in the State of Colorado.

Dam Safety Risk

Mr. Nate Snorteland, PE, Director, USACE Risk Management Center



Nate Snorteland has been with the Corps of Engineers as the Director of the Risk Management Center since 2009. In this role, Mr. Snorteland is responsible for managing risks for the Corps of Engineers portfolio of more than 740 dams and 15,000+ miles of levees. Mr. Snorteland's background includes experience designing and constructing a wide variety of dams across the United States. He has experience with grouting, RCC, seismic analysis, and embankment dam construction, culminating with being a designer and construction engineer for Ridges Basin Dam, a 275-foot high pump-storage dam in Southwest Colorado. Following his work as a designer and construction engineer, he worked in the dam safety program for the Bureau of Reclamation in a variety of roles. He was Reclamation's project manager and lead engineer for the Joint Federal Project, a \$1.6 billion flood risk management and dam safety project at Folsom Dam in California.

He specializes in risk assessment and risk management and developed risk management strategies for both Reclamation and the Corps of Engineers. Since coming to the Corps of Engineers, he has led efforts related to risk, risk analysis, risk management, portfolio management, design standards, and risk-informed design.

He sits on the Dam and Levee Safety Committees for USSD and the Journal Committee for ASDSO.

He holds a B.S. in Civil engineering from the University of Colorado, Denver and a M.S. in Geotechnical Engineering from Virginia Tech. He is a registered professional engineer in the State of Colorado.

Lessons Learned from 2020 Edenville and Sanford Dam Failures

Mr. Paul Shannon, Branch Chief, FERC Division of Dam Safety & Inspections



Paul Shannon is the Branch Chief of the Headquarters Dam Safety Branch of the Federal Energy Regulatory Commission's - Division of Dam Safety and Inspections. He has worked at FERC for over 30 years and has been involved with numerous dam safety-related projects including new construction, investigations, remediations, and incident/emergency response. He is also a long-time instructor of FERC's EAP Exercise Design Course.

Design Overview for the Isabella Lake Dam Safety Modification Project

Mr. Mike Ruthford, PE, Technical Lead/Lead Engineer, USACE SPD-DSPC

Mr. David Serafini, PE, PG, Lead Engineer, Geosciences Branch Chief, USACE SPD-DSPC



Mr. Ruthford has over 35 years of experience with USACE in the areas of Dam Safety and Structural Design. Mr. Ruthford started his USACE career in the Sacramento District and is now in the SPD-DSPC. Mr. Ruthford is the Phase II Technical Lead for the Isabella Lake Dam Safety Modification Project. Mr. Ruthford earned his B.S. degree in civil engineering at California State University, Sacramento. He is a registered professional engineer in the state of California.



David Serafini is the Geosciences Branch Chief for the U.S. Army Corps of Engineers in the South Pacific Division Dam Safety Production Center (SPD-DSPC). He has over 20 years of experience with USACE in the areas of Dam Safety and Geotechnical Engineering. Mr. Serafini started his USACE career in the Sacramento District and is now in the SPD-DSPC. Mr. Serafini is the Lead Engineer for the Isabella Lake Dam Safety Modification Project.

Rehabilitation of the Main Dam for the Isabella Lake Dam Safety Modification Project (DSMP)

Mr. Carlos Hernandez, PE, Project Engineer, USACE Isabella Lake Dam Resident Office



Carlos Hernandez currently serves as the USACE Project Engineer for the rehabilitation of the Main Dam - Isabella Lake Dam Safety Modification Project (DSMP). Prior to joining the Isabella Lake DSMP team, he served as a Geotechnical Engineer for the USACE New Orleans District where he worked on a variety of levee and flood risk reduction projects. He is a registered Professional Engineer and Professional Geoscientist in the State of Louisiana. He has a B.S. degree in Engineering Geology from UCLA and a M.S. degree in Geological Engineering from the Colorado School of Mines.

B. F. Sisk Dam/San Luis Reservoir

Ms. Katherine Strozinski, Dam Safety Program Manager, Bureau of Reclamation



Katherine Strozinski is a Program Manager in the Bureau of Reclamation's Dam Safety Office in Denver, Colorado. She has over 24 years of experience in dam safety, engineering design, and project management. Katherine joined Reclamation in 2009 and worked in the construction management group prior to moving to the Dam Safety Office. Currently, she manages a portfolio of 36 high hazard dams within the California-Great Basin Region with a focus on using risk-informed decision making. Katherine received her bachelor's degree in Civil Engineering from the University of Tennessee in 1997 and is a registered P.E. in the State of Colorado.

Risk Communication—Rapid Inundation Tool (RIM)

Mr. Ed Stowasser, PE, Hydraulic Engineer, USACE Dam Safety Modification Center of Expertise



Mr. Stowasser is a 2005 graduate of West Virginia University Institute of Technology in Montgomery, WV with a Bachelor's Degree in Civil Engineering. Currently he is a registered professional engineer in the state of West Virginia. He has worked for the Huntington District, US Army Corps of Engineers, since 2001. He is currently working in the Dam Safety Production Center as a hydraulic engineer for the H&H and Technical Support section. He has been involved with several Dam Safety Studies, Periodic Inspections, Periodic Assessments, Issue Evaluation Studies, and Screening for Portfolio Risk Assessments. Ed has performed as a technical team lead with the national Modeling, Mapping, and Consequence Center (MMC), where he creates HEC-RAS dam failure models, inundation flood mapping, and HEC-FIA models to determine risk and consequences associated with dam or levee failures. He has also been working on the development of the MMC's Rapid Inundation Mapping (RIM) tool that will build inundation maps for real-time and flood emergency planning exercises.

consequences associated with dam or levee failures. He has also been working on the development of the MMC's Rapid Inundation Mapping (RIM) tool that will build inundation maps for real-time and flood emergency planning exercises.

Levee Safety Program

Ms. Tammy Conforti, PE, USACE Special Assistant for Levee Safety

Mr. Michael Bachand, PE, Technical Manager, USACE National Levee Safety Program



Ms. Conforti is a registered professional engineer and has worked for the US Army Corps of Engineers (USACE) for 29 years in a variety of areas related to flood risk management. In her current role as the Special Assistant for Levee Safety, she is responsible for overseeing implementation of the agency's Levee Safety Program. This involves leading the development and issuance of program policies; serving as technical advisor on levee safety aspects and issues; prioritizing the agency's program activities; and fostering partnerships by serving on related national committees and task forces. In 2020, Ms. Conforti initiated efforts to begin designing elements for a National Levee Safety Program, which will include creating comprehensive national guidelines and fostering levee safety programs at the state, regional, and local levels. Ms. Conforti has a B.S. in Civil Engineering from Virginia Tech and a M.S. in Risk Management from Notre Dame of Maryland University. She is a registered professional engineer and a certified floodplain manager.



Mr. Michael Bachand is currently serving as a Technical Manager supporting the development of the National Levee Safety Program and specifically focused on leading the Intergrated Levee Management component since 2020. Mr. Bachand began working for the New England District (NAE) in May 2012 as the district's Levee Safety Program Manager. Prior to NAE, Mike spent approximately 13 years working in private industry for a consulting engineering company called CDM Smith. Mike joined CDM Smith upon graduating from college at the University of Massachusetts-Lowell. He is a registered

professional engineer in Massachusetts and Louisiana and holds B.S. and M.S. degrees in Civil Engineering from the University of Massachusetts-Lowell.

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UPCOMING WEBINAR SERIES EVENTS

July 14

The next virtual webinar will focus on local government, agencies, and utilities. We will have speakers from the California Governor's Office of Emergency Services, Klamath River Renewal Corporation, Metropolitan Water District, and other agencies.

You will need to register for this event if you registered for today's event only!

October 6

Our third virtual webinar will focus on the private sector. We will have speakers from firms including AECOM, HDR, Jacobs, Mead & Hunt, Shannon & Wilson, and Stantec.

You will need to register for this event if you registered for today's event only!

Early 2023

We are working to add an in-person fourth session. Details will be available soon.

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