34th USSD Annual Meeting and Conference

April 7-11, 2014

Host
San Francisco Public Utilities Commission

Conference Theme
Dams and Extreme Events — Reducing Risk of Aging Infrastructure under Extreme Loading Conditions

Four Concurrent Workshops — April 10

Hyatt Regency San Francisco Airport
San Francisco, California
The 2014 USSD Conference theme is *Dams and Extreme Events — Reducing Risk of Aging Infrastructure under Extreme Loading Conditions.* The nation’s 80,000 dams are aging, and more than 75 percent of these facilities are more than 50 years old. However, the criticality of these facilities has increased over time as a result of the ever increasing demands for water, flood control and energy. In addition, many older low and significant hazard dams that were constructed to protect agricultural interests are now protecting people and personal property. As a result, the classifications of many of these structures have changed to high hazard, bringing new costly challenges for owners to retrofit or modify existing dams in response to the new role of the structure.

As dam owners are faced with the decision of either life extension or retirement of aging facilities, a renewed focus on dam safety risk reduction for extreme loading conditions through prudent economic investment is paramount to making wise decisions.

The theme for this 34th Annual Conference highlights the need for continued innovation in prediction and analysis of loading conditions from extreme events, and the need to apply these advances to make prudent investments to reduce risk and economically meet the ever increasing needs for responsible water resources, flood control, energy and mining projects.

The **Opening Plenary Session** on Tuesday morning will include several presentations addressing contemporary topics of interest to dam professionals, including issues especially relevant to California.

Five **Concurrent Technical Sessions** on Tuesday afternoon and Wednesday, and a **Poster Session** Tuesday evening, will feature the presentation of more than 120 technical papers.

On Thursday, two morning workshops will take place, as well as two full-day workshops. An afternoon field trip will take participants to the **Lower Crystal Springs Dam.** The Friday field trip will visit **Calaveras Dam** and **Los Vaqueros Dam.**

The **Opening Plenary Session** on Tuesday morning will include several presentations addressing contemporary topics of interest to dam professionals, including issues especially relevant to California.

The **Tuesday evening** will feature the presentation of more than 120 technical papers.

On Thursday, two morning workshops will take place, as well as two full-day workshops. An afternoon field trip will take participants to the **Lower Crystal Springs Dam.** The Friday field trip will visit **Calaveras Dam** and **Los Vaqueros Dam.**

The **Tuesday lunch presentation** will feature the **young professional perspective;** the **Wednesday lunch presentations will focus on the Calaveras Dam Replacement Project.** The **Wednesday dinner speaker will be Steven L. Stockton**, Director of Civil Works, Corps of Engineers.

The **Wednesday Awards banquet** will feature the presentation of the **Outstanding Paper Awards, and awards for Excellence in the Constructed Project and Lifetime Achievement.** Winners of the **2014 USSD Scholarships** will also be announced.

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**Host**

The San Francisco Public Utilities Commission will serve as Host of the 34th Annual Meeting and Conference, and will organize the field tours.

**Acknowledgments**

The Conference technical program was organized jointly by several USSD Committees under the leadership of **Daniel L. Wade**, San Francisco Public Utilities Commission.

**Exhibition and Sponsorships**

An **exhibition** featuring water resources related goods and services will be held during the Conference. The exhibition will open with a reception on Monday evening; continental breakfasts, lunches and breaks on Tuesday and Wednesday, and a reception on Tuesday evening will be held in the exhibit area to ensure maximum interaction with Conference participants.

**Sponsorships** for Conference activities and products are also available. For exhibitor and sponsor information, go to www.ussdams.org/2014exhi.html.

**Venue**

The Conference will be held at the **Hyatt Regency San Francisco Airport.** Only 20 minutes from downtown San Francisco, the Hyatt Regency is just a short drive from San Francisco International Airport (SFO), with easy access to BART (Bay Area Rapid Transit). Recently updated, the hotel features a heated outdoor pool, a complimentary full service fitness gym and a café, deli and sports bar.

**Young Professionals**

To encourage **Young Professionals** to participate in the Conference, a discounted registration rate is offered to those age 35 and under. A **Tuesday evening event following the Poster Session and Reception will provide an opportunity for additional networking.** And, an **Outstanding Paper Award will go to a Young Professional author.**

**Continuing Education Units**

Colorado State University, Division of Continuing Education, will grant CEUs after successful completion of the Conference and/or a Workshop. CEU information will be available at the Conference.
USSD Committee Meetings

Committee Meetings, to be held on Monday, are an important part of the Annual Meeting. Committees meet for part or all day — a schedule will be available online a few weeks prior to the Conference. All Conference participants are welcome to attend:

- Awards
- Concrete
- Construction and Rehabilitation
- Dam Decommissioning
- Dam Safety and Dam Security
- Earthquakes
- Embankment Dams
- Environment
- Foundations
- Hydraulics of Dams
- ICOLD Congress Papers
- Levees
- Membership
- Monitoring of Dams and Their Foundations
- Newsletter
- Public Awareness
- Tailings Dams
- Young Professionals

Hotel Reservations and Information

The Conference and Workshops will be held at the Hyatt Regency San Francisco Airport, 1333 Bayshore Highway, Burlingame, CA 94010, 650-347-1234, www.sanfranciscoairport.hyatt.com.

The special rate for USSD Conference participants is $189 single or double, plus taxes. To make reservations, call 888-421-1442 and request the special USSD rate. Or, take the link from the USSD website to make online reservations. A limited number of rooms are available at the prevailing Federal Government Per Diem.

The Hotel provides complimentary 24-hour shuttle service to and from San Francisco International Airport and BART at the International Terminal.

The room block rate is guaranteed only through March 21, or until the room block fills. Reservations after March 21 will be at the prevailing room rate, subject to availability.

Conference and Workshop Registration

The Conference Registration Fee for the Annual Meeting and Conference includes:

- Conference Proceedings
- Technical sessions
- Monday evening kick-off reception
- Continental breakfasts Tuesday and Wednesday
- Lunches Tuesday and Wednesday
- Tuesday evening reception
- Wednesday reception and dinner
- Thursday evening Shuttle Service
- Thursday Field Tour and/or Workshop, with lunch
- Friday Field Tour, with lunch

The fee is $995 for USSD Members and $1,095 for non-members, with a $100 early discount. A Young Professional Fee of $450 is available to participants age 35 and younger. To receive the Early Registration Rate, you must register by March 28. The Late Registration Fee applies to registrations received after March 28 and on-site registrations. The Registration Fee can be paid by check; VISA, MasterCard or Discover; or purchase order.

Cancellation Policy: To receive a refund, USSD must receive notice of cancellation by the end of business on March 31. All refunds are subject to a $25 processing fee. After March 31, the registration fee is not refundable, but substitutions are acceptable.

To register for the Conference or a Workshop, complete and return the Registration Form, or register online at www.ussdams.org/2014conf.html.
Online Conference Information

The Final Program, online registration and Exhibitor/Sponsor information and reservation forms are at www.usddams.org/2014conf.html.

Field Tours

**Thursday Field Tour — Lower Crystal Springs Dam, 1:00 - 5:00 p.m.**

The tour will begin at 1 p.m. following lunch at the Hyatt. **Lower Crystal Springs Dam**, owned and operated by the San Francisco Public Utilities Commission, is a concrete gravity dam constructed on San Mateo Creek. The structure was completed in 1888 adjacent to the San Andreas Fault, and has survived numerous historic earthquakes. The dam recently underwent hydraulic improvements, including modifications to the spillway in conjunction with raising the parapet wall on top of the dam, and constructing a new and larger stilling basin at the base of the dam. Currently under construction improvements to the outlet structures and a new pump station for transmission of water to San Andreas Reservoir and the Harry Tracey Water Treatment Plant are also part of the tour.

**Friday Field Tour — Calaveras Dam and Los Vaqueros Dam, 7:30 a.m. - 6:00 p.m.**

The Friday Field Tour will include visits to **Calaveras Dam** and **Los Vaqueros Dam**. Calaveras Dam, owned and operated by the San Francisco Public Utilities Commission, was the largest earth and rock fill dam in the world at the time of completion in 1925. Construction of the Calaveras Dam Replacement Project began in 2011. The existing dam will be replaced by a new earth and rock fill embankment dam, spillway and inlet/outlet works that will meet current seismic safety design requirements. The project also includes fish passage facilities and other environmental enhancements. Construction of the $620 million dollar project is scheduled for completion in Fall 2017.

Los Vaqueros Dam, owned and operated by the Contra Costa Water District, is an embankment dam constructed in the late 1990s to provide a reservoir with a capacity of 123,348,185 cubic meters. Construction for the Los Vaqueros Reservoir Expansion Project was completed in 2012, raising the height of the dam by 10 meters and increasing storage by 60 percent. This additional water storage ensures the customers of Contra Costa Water District are provided with high quality water, greater drought storage, and provides enhanced protections for Delta fisheries and the environment. The tour will include lunch and a stop at a local winery.

Workshops

Four Workshops (two morning sessions and two all day sessions) will be held Thursday, April 10. Workshop attendance is included in the Conference Registration Fee. For those **not** attending the Conference, the Workshop fee is $320.

A buffet lunch will be served at 12 noon for those attending a workshop or the field tour.

**Role of Human Error in Dam Incidents and Failures**

8:00 a.m. - 12:00 noon
Organized by the USSD Committee on Dam Safety and Dam Security
Points of Contact — Catrin van Donkelaar, McMillen-LLC; and Kim de Rubertis, Consulting Engineer

**Next Generation Attenuation Relationships and the Estimation of Ground Motions for Dams**

8:00 a.m. - 12:00 noon
Organized by the USSD Committee on Earthquakes
Points of Contact — Ross W. Boulanger, University of California, Davis; Joseph L. Ehasz, URS Energy & Construction, Inc.; and Yousef Bozorgnia, Pacific Earthquake Engineering Research Center

**Case Histories in Dam Safety Risk Assessment**

8:00 a.m. - 5:00 p.m.
Organized by the USSD Committee on Dam Safety and Dam Security, Risk Subgroup
Points of Contact — David S. Bowles, RAC Engineers & Economists and Utah State University; and Elena Sossenkina, HDR Engineering, Inc.

**Seismic Design of Tailings Dams**

8:00 a.m. - 5:00 p.m.
Organized by the USSD Committee on Tailings Dams
Points of Contact — José L.M. Clemente, Bechtel Power Corporation; and Christina Winckler, URS Corporation
Guest Program

Guests will have an opportunity to meet and mingle during a coffee reception on Tuesday morning. A representative from the San Francisco Convention and Visitors Bureau will introduce guests to the city and its many attractions. This event will be an opportunity for guests to join others in activities or tours to be arranged on your own. Information on possible tours will be available at the Meet and Mingle event.

Guests will also enjoy the following Conference activities:

- Monday evening Kick-Off Reception
- Continental Breakfasts on Tuesday and Wednesday
- Tuesday morning Meet and Mingle Reception
- Reception on Tuesday evening
- Reception and awards banquet on Wednesday
- Thursday Evening Shuttle to city of San Francisco
- Field Tours and lunches on Thursday and Friday

The Guest Registration Fee is $325.

Guest Program Agenda

**Monday, April 7**

6:00 p.m. - 8:00 p.m.  
**Kick-Off Reception**

**Tuesday, April 8**

7:00 a.m. - 8:00 a.m.  
**Continental Breakfast**

10:00 a.m. - 11:00 a.m.  
**Meet & Mingle**

5:30 p.m. - 7:30 p.m.  
**Reception**

**Wednesday, April 9**

7:00 a.m. - 8:00 a.m.  
**Continental Breakfast**

7:00 p.m. - 10:00 p.m.  
**Reception and Dinner**

**Thursday, April 10**

12:00 noon - 12:45 p.m.  
**Lunch**

1:00 p.m. - 5:00 p.m.  
**Field Tour and Lunch**

5:30 p.m. - 11:30 p.m.  
**Complimentary Shuttle Service to city of San Francisco**

**Friday, April 11**

7:30 a.m. - 6:00 p.m.  
**Field Tour and Lunch**
## Program Summary

### Sunday, April 6
- 4:00 p.m. - 7:00 p.m.
  - Registration

### Monday, April 7
- 7:00 a.m. - 6:00 p.m.
- 4:30 p.m. - 6:00 p.m.
- 6:00 p.m. - 8:00 p.m.
- 4:00 p.m. - 7:00 p.m.
  - Registration
  - Committee Meetings
  - Annual Meeting of Members
  - Kick-off Reception/Exhibition Opens

### Tuesday, April 8
- 7:00 a.m. - 8:00 a.m.
- 7:00 a.m. - 5:30 p.m.
- 8:00 a.m. - 9:30 a.m.
- 10:00 a.m. - 12:00 noon
- 12:00 noon - 1:15 p.m.
- 1:30 p.m. - 3:00 p.m.
- 3:00 p.m. - 3:30 p.m.
- 3:30 p.m. - 5:30 p.m.
- 5:30 p.m. - 7:30 p.m.
  - Continental Breakfast in Exhibit Hall
  - Registration
  - Opening Plenary Session
  - Break in Exhibit Hall
  - Opening Plenary Session, continued
  - Lunch with Speaker
  - Five Concurrent Sessions 1
  - Five Concurrent Sessions 2
  - Reception, Exhibition & Poster Session

### Wednesday, April 9
- 7:00 a.m. - 8:00 a.m.
- 7:00 a.m. - 5:30 p.m.
- 8:00 a.m. - 9:30 a.m.
- 9:30 a.m. - 10:00 a.m.
- 10:00 a.m. - 12:00 noon
- 12:00 noon - 1:15 p.m.
- 1:30 p.m. - 3:00 p.m.
- 3:00 p.m. - 3:30 p.m.
- 3:30 p.m. - 5:00 p.m.
- 5:30 p.m. - 7:00 p.m.
  - Continental Breakfast in Exhibit Hall
  - Registration
  - Five Concurrent Sessions 3
  - Break in Exhibit Hall
  - Five Concurrent Sessions 4
  - Lunch with Speakers
  - Five Concurrent Sessions 5
  - Break in Exhibit Hall; Exhibition closes
  - Five Concurrent Sessions 6
  - Reception and Awards Dinner

### Thursday, April 10
- 7:30 a.m. - 8:00 a.m.
- 8:00 a.m. - 12:00 noon
- 12:00 noon - 12:45 p.m.
- 1:00 p.m. - 5:00 p.m.
- 1:00 p.m. - 5:00 p.m.
- 5:30 p.m. - 11:30 p.m.
  - Workshop Registration
  - Workshops
  - Lunch
  - Workshops
  - Field Tour — Lower Crystal Springs Dam
  - Complimentary Shuttle Transportation to San Francisco

### Friday, April 11
- 7:30 a.m. - 6:00 p.m.
  - Field Tour — Calaveros Dam and Los Vaqueros Dam
**USSD 2014 Annual Meeting and Conference and Workshops Registration Form**

To register, complete and return this Form to USSD, or register online at [www.ussdams.org/2014conf.html](http://www.ussdams.org/2014conf.html).

Given Name _________________________________ Family Name __________________________________________________

Organization ________________________________________________________________________________________________

Address ____________________________________________________________________________________________________

City _____________________________ State/Province ________ Zip/Postal Code _________ Country _____________________

Telephone _____________________ Fax _____________________ E-mail _____________________________________________

First Name or Nickname (for name tag) ___________________________________________________________________________

Guest Name ________________________________________________________________________________________________

Special Dietary Requirements — I do not eat _______________________________________________________________________

Arrival Date ____________________________________ Departure Date ______________________________________________

With a 0, 1 or 2, indicate the number of participants and guests who will participate: Thursday Tour _______ Friday Tour ________

**Field Tour Participants — Non-U.S. Citizens**: Passport Number ________________________________ Country _____________

Passport Expiration Date (year/month/day) _______________________ Date of Birth (year/month/day) ________________

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**USSD Conference Registration Fees**

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Please check if you will attend a Workshop (check only one):

- Role of Human Error – morning
- Estimation of Ground Motions — morning
- Risk Assessment — all day
- Tailings Dams — all day

Conference Attendee — No Fee for Workshop

Workshop Only — $320

Guest Registration — $325

Total Registration Fees $_____

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*To receive the Early Registration Fee, your online registration, or this Registration Form, must be received in Denver by **March 28**. The Late Registration Fee applies to registrations received after March 28 and on-site.

**Payment should accompany this form. Pay by P.O.; cash; check; or VISA, MasterCard or Discover.**

- Check Enclosed
- Purchase Order # ____________________________
- VISA/MasterCard/Discover # __________________ Exp. Date __________________

Name on Credit Card ____________________________ Signature __________________

**U.S. Society on Dams**

1616 Seventeenth Street, #483

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