

## 2007 ARID REGIONS & CASFM CONFERENCE PROGRAM

### *“Roundup in the High Country – Gather at the Source”*

#### **Tuesday, September 11, 2007**

##### **Certified Floodplain Manager Training Session**

8:00 am - 5:00 pm

Location: Beaver Run Conference Center – Rooms Peak 15-16 (1<sup>st</sup> Floor)  
Kallie Bauer, Applegate Group, and Kevin Houck, CWCB

##### **Concurrent Field Trips**

9:00 am - 5:00 pm

##### **Clear Creek Stabilization, Kayak Course, Coors Brewery, and Black Hawk Tour**

Meeting Location: Conference Parking Lot (Outside from Room 15 – 1<sup>st</sup> Floor)  
Tour Guide: Nancy Love, Love Associates

9:00 am - 5:00 pm

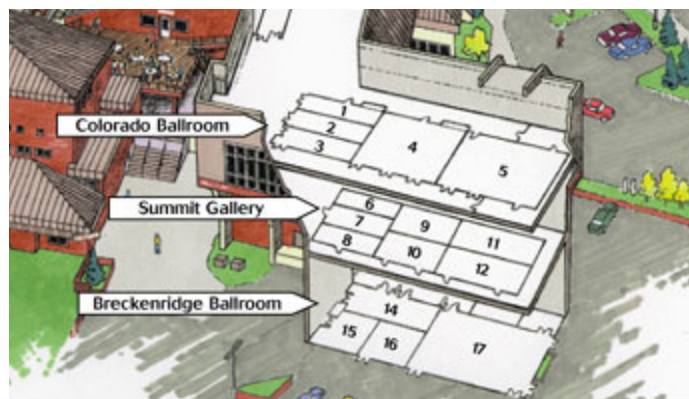
##### **Vail Debris Flow Alluvial Fans and Glenwood Post-Wildfire Tour**

Meeting Location: Conference Parking Lot (Outside from Room 15 – 1<sup>st</sup> Floor)  
Tour Guide: Brian Hyde, Dewberry

12:00 pm - 5:00 pm

##### **Dillon Reservoir Trans-Basin Diversions, Flood Control and Boat Tour**

Meeting Location: Beaver Run Conference Center – Room Peak 6 (2<sup>nd</sup> Floor)  
Tour Guide: Bob Peters, Denver Water



**Speaker Prep – Rooms Peak 11-12 (Wednesday-Friday)**

5:30 - 6:30 pm

**Happy Hour** in Vendor Exhibit Area  
**Dinner on your own**

**Wednesday, September 12, 2007**

- 7:00 - 10:00 am      **Certified Floodplain Manager Exam**  
 Location:            Rooms Peak 15-16 (1<sup>st</sup> Floor)  
 Kallie Bauer, Applegate Group, and Kevin Houck, CWCB
- 8:00 - 9:45 am        **Registration** – Outside Room 5 in the Vendor Area (Top Floor)  
 Bruce Behrer, Muller Engineering
- 9:45 - 10:00 am      **Introduction and Welcome**  
 Location:            Colorado Ballroom (Top Floor)  
 Tom Browning, CASFM Chair  
 Bob Davies, ASFPM Arid Regions
- 10:00 - 11:30 am     **Keynote Address “Major Climatological Events”**  
 Nolan Doesken, Colorado State Climatologist  
 Location:            Colorado Ballroom (Top Floor)
- 11:30 – 1:00 pm      **Lunch**  
 Location: Breckenridge Ballroom – Room Peak 17 (1<sup>st</sup> Floor)  
**Introduction of 2007/2008 CASFM Officers**  
**CASFM 2006/2007 Scholarship Recipient Technical Presentation**
- 1:00 - 2:30 pm        **Plenary Session – Arid Regions Lessons Learned from Natural Hazard Event Experiences**  
 Location:            Colorado Ballroom (Top Floor)  
 Moderator:          Mark Glidden, CH2M Hill  
                          Maureen Towne, Arizona Department of Water Resources  
                          Brian Hyde, Dewberry  
                          Bill Borthwick, New Mexico State Floodplain Administrator
- 2:30 - 3:00 pm        **Break** in Vendor Areas
- 3:00 - 5:00 pm        **Project Presentations: 2007 CASFM Project Award Nominees**  
 Location:            Colorado Ballroom (Top Floor)  
 Moderator:          John Pflaum, ASCG, Inc.  
**Cherry Creek Stream Restoration and Crossing at 17 Mile House**  
                          Arapahoe County Public Works  
                          Muller Engineering Company  
                          Urban Drainage and Flood Control District  
**Standley Lake Dam Improvements**  
                          Farmers Reservoir and Irrigation Company  
                          Cities of Westminster, Northglenn, Thornton  
                          CH2M Hill  
**The Colorado Convention Center and Downtown Storm Sewer**  
                          City and County of Denver  
                          Lund Partnership, Inc.  
**West Prospect Ponds Drainage Improvements**  
                          City of Fort Collins  
                          Stantec Consulting, Inc
- 1:00 - 5:00 pm        **Corps of Engineers Committee Meeting**  
 Location:            Copper Top II
- 5:00 - 6:30 pm        **Happy Hour** in Vendor Exhibit Area  
**Dinner on your own**

**Thursday, September 13, 2007****7:30 - 8:30 am CASFM General Membership Breakfast Meeting**

All conference participants welcome

Location: Breckenridge Ballroom – Room Peak 17 (1<sup>st</sup> Floor)**8:30 – 12:00 pm Concurrent Technical Sessions****(10:00 – 10:30 am Break)****Track 1: Stream Restoration and Watershed Management**

Location: Room Peak 5 (Top Floor)

Moderator: Michelle Leach, Matrix Design Group

"Understanding Section 404 Permit Requirements for Development in Floodplains"

Scott Franklin, US Army Corps of Engineers

Cindy Thrush, Urban Drainage and Flood Control District

"Trail Creek Watershed Planning Study"

Brian Murphy, Engineering and Hydrosystems, Inc

Rich Ommert, Moser and Associates

Garth W. Englund Jr. and Don Moore, Douglas County

"Lee Moore Wash Basin Management Study"

Bill Zimmerman, Pima County Regional Flood Control District

John Wise, Stantec Consulting

Chuck Williams, C.L. Williams Consulting

"Restoration of Lower Las Vegas Wash"

Rick Shimota and Chris D. Bahner, WEST Consultants

"New Urban Waterway Design: Correcting Historic Agricultural Channel Straightening - A Case Study of Kinney Creek in Parker, Colorado"

Cory Hooper, AMEC Earth &amp; Environmental

"El Rio Watercourse Master Plan"

John Hathaway, Flood Control District of Maricopa County

Patrick Ellison, Stantec Consulting

**Track 2: Flood Hazards and Floodplain Mapping**

Location: Room Peak 4 (Top Floor)

Moderator: David Mallory, Urban Drainage &amp; Flood Control District

"Accuracy of Zone 'A' Floodplains Defined Using Automated Methods"

Mark Kempton, Michelle Martin, and Greg Koch, Anderson Consulting Engineers

"Benefits &amp; Pitfalls of Automatic Floodplain Delineation"

Alan D. Turner, PBS&amp;J

"A Need for Improved Accuracy of FEMA Floodplain Zones"

Rebecca Yalcin, WEST Consultants, Inc.

"A Village Amid Troubled Water – A Case Study in Floodplain Management in the Grand Canyon"

Todd Hanlin and Jill Preston, Stantec Consulting Inc.

"GIS Monitoring of Watershed Flood Risk: A Case Study in Costilla County, Colorado"

Brian Hyde, Dewberry

Pete Magee, San Luis Valley GIS-GPS Authority

"Western Flooding: Identifying and Addressing Flood Hazards in the Ranchman's Ditch and Leach Creek Basins within Grand Junction, CO"

Craig Jacobson, ICON Engineering

David Donohue, City of Grand Junction Public Works

### **Track 3: Stormwater Management**

Location: Rooms Peak 1-2-3 (Top Floor)

Moderator: Terry Baus, City & County of Denver

“City of Boulder Stormwater Master Plan - An Efficient Use of GIS in the Development of an Implementable CIP”

Rich Thornton, HDR

Douglas Sullivan, City of Boulder

“Stormwater Management in Cherry Creek and Alberta, Canada - Critical Urban Watersheds”

Dr. Robert McGregor & Aaron Murray, AMEC Earth & Environmental, Inc.

“How to Keep Your Stormwater Management Job and Live to Tell About It, or Shoehorning a Major Storm Drainage Outfall into a Fully Developed Urban Neighborhood”

Dennis Ohlrogge, City and County of Denver, Public Works

Peter Nelson, P L Nelson Engineering, Inc.

“Implementing a Multi-Jurisdictional Stormwater Enterprise”

Steve Gardner, Southeast Metro Stormwater Authority

Jon Sorensen, AMEC Earth & Environmental

“GIS Based County Wide Drainage Master Plan”

Elise Moore, Pinal County, AZ and Hernan Aristizabal, Entellus, Inc.

“Streamlining with GIS: Techniques, Benefits, and Solutions for Stormwater Management”

Carrie Thompson, AMEC Earth & Environmental

### **Track 4: Alluvial Fans**

Location: Rooms Peak 6-7-8 (2<sup>nd</sup> Floor)

Moderator: Valerie A Swick, Flood Control District of Maricopa County

“Alluvial Fan Floodplain Delineations- Lessons Learned and New Directions”

Kathryn Gross, Flood Control District of Maricopa County and

Jon Fuller and JE Fuller, Hydrology and Geomorphology, Inc.

“Application of Uncertainty Analysis in Floodplain Management: Maricopa County’s Pilot Study on the Hydrology of an Alluvial Fan Apex”

Linda A. Potter, HDR

“Alluvial Fan Management and Analyses: Methods Used in the State of Colorado”

David T. Williams, Ph.D. and Sarah Houghland, PBS&J

“Launching the Alluvial Fan Task Force”

Susan Longville, Water Resources Institute,

California State University San Bernardino

“Levee Design for Flood Protection on Alluvial Fans”

Bruce M. Phillips, Pacific Advanced Civil Engineering, Inc.

“Lake Havasu Bluffs Business Park” and “Fox Wash Drainage Improvements”

Yichun Xu, Alex Coronel, and Bob Davies, AMEC

### **Track 5: Corps of Engineers Arid Regions Demonstration Programs** *(Open to all conference participants)*

Location: Rooms Peak 9-10 (2<sup>nd</sup> Floor)

This track present the results of work performed under two Army Corps of Engineers demonstration programs. These programs focus on urban flood damage reduction and channel restoration in the arid and semi-arid regions of the Southwestern United States. The goal of the programs is to develop and demonstrate innovative technologies to address regional problems. Work is being undertaken by the U.S. Army Corps of Engineers Engineering Research and Development Center (ERDC) in collaboration with the Desert Research Institute of Nevada and the University of New Mexico. Work efforts have focused on the Truckee River (NV), the Las Vegas Wash (NV), Rio Salado (AZ), and the Middle Rio Grande (NM). Stakeholders include Corps district personnel, other federal agencies, and state and local government and flood control districts. The technical sessions will cover completed, ongoing, and planned work efforts in areas including:

- Geomorphic evaluation of river channel changes
- Supercritical flood channel design
- Short-duration volume-frequency relations for ungaged watersheds
- Temperature and fire effects on infiltration
- Bank erosion processes and protection measures
- Evapotranspiration and riparian zone restoration
- Sediment transport modeling tools in river restoration design

12:00 - 1:00 pm

#### **Lunch**

Lunch for Conference Attendees

Location: Breckenridge Ballroom – Room 17 (1<sup>st</sup> Floor)

CASFM Board Member Lunch Meeting – Spencer's Private Dining Room  
All CASFM Board Members, Regional Rep's, and  
Committee Chairs please attend.

1:00 - 4:30 pm      **Concurrent Technical Sessions**  
 (2:30 – 3:00 pm)      **Break)**

### **Track 1: Flood Preparedness**

Location:      Room Peak 5 (Top Floor)  
 Moderator:      George V. Sabol, Stantec

“Automated Local Evaluation in Real-Time: A Tutorial on How to Use the Urban Drainage Network for Real-Time Monitoring or Historic Data Retrieval”

Chad Kudym, Urban Drainage and Flood Control District

“Flood Warning Response Plans: A Proactive Approach to Flooding Events”

William Badini, John Henz, and Robert Rahrs, HDR Engineering

“Local Drought Mitigation Planning - A Proactive Approach by Working with Climate...Not Against It”

William Badini and John Henz, HDR Engineering

Brian Hyde, Dewberry

“Responding to a Perfect Storm in the Sonoran Desert”

Mark Krieski, Pima County Regional Flood Control District

“1997 Floods in Retrospect – A Tale of Two Cities”

Penn Gildersleeve, ICON Engineering

Bob Smith, City of Fort Collins

Joe Kiolbasa, City of Sterling

“2007 Flood Season Review”

Kevin Houck, Colorado Water Conservation Board

### **Track 2: Technical Hydrology & Hydraulic Modeling**

Location:      Room Peak 4 (Top Floor)  
 Moderator:      Lisa Lauver, Stantec

“Examination of a New Procedure for Estimating Green and Ampt Parameters”

R. Michael Gerlach, Stantec Consulting Inc.

Thomas R. Loomis, Flood Control District of Maricopa County

“Plans of Action for Nevada’s Scour Critical Bridges”

John H. Hunt and Leif Embertson, Ayres Associates

“Potential Effects of Translatory Waves on Estimation of Peak Flows”

J. V. Phillips and H. W. Hjalmarson, U.S. Geological Survey

“Flood Modeling – Traps, Pitfalls and Swindles”

J. S. O’Brien, FLO-2D Software, Inc.

“Lessons Learned from 2-D and 1-D Hydraulic Models of the same Watercourse”

Michael W. Duncan, Flood Control District of Maricopa County

Michael D. Heaton and Ying Xu, Project Engineering Consultants, Ltd.

“Tips on Using the Dambreak Option in HEC-RAS”

David T. Williams, PhD, PBS&J

**Track 3: Stormwater BMPs, Erosion Control and Water Quality**

Location: Rooms Peak 1-2-3 (Top Floor)

Moderator: Doug Plasencia, Michael Baker Jr., Inc.

“Integration of a Land Use and Hydrologic Model to Provide Decision Support for Smart Growth Strategies”

Graeme Aggett, Riverside Technology, Inc.

“Hydrologic Performance Assessment of a Porous Asphalt Stormwater Treatment Facility”

Thomas P. Ballester, Joshua Briggs, Robert M. Roseen, and James J. Houle  
University of New Hampshire Stormwater Center

“Physically Based Regression Equations to Estimate Surface Erosion Capacity”

Hui-Ming Shih and Eugene P. Vodjansky, Martin/Martin Inc.

Chih Ted Yang, Ph.D., Colorado State University

“Black Gore Creek Sediment Control”

Peter Waugh, Peter D. Waugh, PLLC and Robert Weaver, Hydrosphere, Inc.

“Escherichia coli: A Programmatic Approach for TMDL Development”

Megan Monroe and Donna Scott, City of Boulder

“Hydrodynamic Separators as Stormwater Best Management Practices”

Karen K. Nichols, K. D. Moncur, A. Howe, D. Stuhff, and A. Wakil,  
Stantec Consulting Inc.

**Track 4: Dillon Reservoir Trans-Basin Diversions, Flood Control and Boat Tour (Repeat of Tuesday's Field Trip)**

12:00 pm - 5:00 pm

Meeting Location: Beaver Run Conference Center – Room Peak 6 (2<sup>nd</sup> Floor)

Tour Guide: Bob Peters, Denver Water

**Track 5: Corps of Engineers Arid Regions Demonstration Programs (Open to all conference participants)**Location: Rooms Peak 9-10 (2<sup>nd</sup> Floor)

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- Temperature and fire effects on infiltration
- Bank erosion processes and protection measures
- Evapotranspiration and riparian zone restoration
- Sediment transport modeling tools in river restoration design

5:00 – 6:30 pm

**Cocktail Hour and Vendor Exhibit** in Vendor Area

6:30 - 8:30 pm

**Association Dinner and Awards Ceremony**Location: Breckenridge Ballroom – Room 17 (1<sup>st</sup> Floor)**Prize Drawings**, Stuart Gardner, CDOT**CASFM Project Awards Presentation**, John Pflaum, ASCG, Inc.

8:30 - 11:30 pm

**Casino Night – Imperial Ballroom**

**Friday, September 14, 2007**

7:30 - 8:30 am      **Continental Breakfast in Vendor Area**

8:30 - 9:00 am      **Closing Remarks**

Location:            Room Peak 5 (Top Floor)

**Arid Regions and CASFM Chair, Stormwater/Flood Committee Chair  
Conference Evaluation**

9:00 – 12:00 pm      **Concurrent Technical Sessions**

(10:00 – 10:30 am Break)

**Track 1: Stream Maintenance, Restoration and Reservoirs**

Location:            Room Peak 5 (Top Floor)

Moderator:        Chuck Childs, Kimley-Horn and Associates, Inc.

“Tall Pot Growing Techniques for Arid Land Revegetation”

Theresa Pinto, Flood Control District of Maricopa County, Arizona

“Vegetation Maintenance Plan Guidelines for Channels in Maricopa County”

Jeff V. Phillips, U.S. Geological Survey

Thomas Loomis and Theresa Pinto, Flood Control District of Maricopa County

“Design of Grass-lined Channels in Semi-Arid Regions: Biologic and Hydraulic Considerations”

George K. Cotton, Roger T. Kilgore, and Deborah Keammerer

“Assabet River Sediment and Dam Removal Modeling Study”

Moosub Eom and Tim Cox, CDM and Barbara Blumeris, USACE New England District

“If I had it to do over again I’d...on the Elkhead Dam Project”

Ray Tenney, Colorado River Water Conservation District

**Track 2: Map Modernization**

Location:            Room Peak 4 (Top Floor)

Moderator:        Michael D. Heaton, Project Engineering Consultants, Ltd.

“Scoping Study Process in Region 1”

Amol Daxikar and Tim Wall, CDM, Cambridge, MA

Firas Makarem and Gaston Cabanilla, CDM Chantilly, VA

“DFIRM Production using FEMA’s MIP”

Matt McGlone and Michael Grasso, CDM

“FEMA’s Mapping Information Platform”

Dave Jula, Michael Baker, Jr.

“Local Map Maintenance – Before, During, and After Map Modernization”

ICON Engineering

“Round Up in the West, Gather at the Floodplain Boundary Standards.”

ICON Engineering, Inc.



**Track 3: Stormwater Controls and Reducing Runoff**

Location: Rooms Peak 1-2-3 (Top Floor)

Moderator: Maher M. Hazine, City of Peoria, Arizona

“Are we Keeping a Lid on LID?”

Thomas P. Ballesterio, Robert M. Roseen, and James P. Houle,  
University of New Hampshire Stormwater Center

“Implementing Low Impact Development at Peterson Air Force Base”

Fred Brooks, Peterson Air Force Base

Lucas Babbitt, Matrix Design Group

“Cochise County Flood Control / Urban Runoff Recharge Plan”

John Wise, Stantec

“A Long Term Hydrologic Analysis for Bluff Lake Nature Center”

Erin Ansell, CDM

“Regional Stormwater Retention for Prairie Gateway”

Michelle Leach, Matrix Design Group

**Track 4: No Adverse Impact Workshop**Location: Rooms Peak 6-7-8 (2<sup>nd</sup> Floor)

Coordinator: David Mallory, Urban Drainage &amp; Flood Control District

Ed Thomas, Map Modernization Team, and Doug Plasencia, Michael Baker will direct a workshop on No Adverse Impact. “No Adverse Impact” (NAI) in floodplain management refers to ensuring that the actions of one property owner do not adversely impact the rights of other property owners, as measured by increased flood peaks, flood stage, flood velocity, erosion and sedimentation, water quality degradation or habitat impacts. This workshop will cover legal and “Takings” issues, how NAI supports and protects property rights and is pro-development, and water quality and wetlands protection issues.

**Track 5: Corps of Engineers – Closed Session**

Location: Room Peak 9-10

12:00 - 5:00 pm

**Golf Tournament at Breckenridge Golf Club**

Contact: Mike Bartusek, ADP – Kirkham Michael

12:00 - 5:00 pm

**Blue River Restoration Bike Tour**Meeting Location: Beaver Run Conference Center – Room Peak 6-7-8 (2<sup>nd</sup> Floor)

Tour Guide: Peggy Bailey, Tetra Tech