Breaking Down RISK: Resiliency, Integration, Sustainability and Knowledge in a Climate of Extremes

A Scientific Approach to Managing Alluvial Fan RISK
A Joint Arid Regions Committee & FMA Symposium
Breaking Down RISK: Resiliency, Integration, Sustainability and Knowledge in a Climate of Extremes

Planning Committee:
Jeremy Lancaster, Julianne Miller, Jon Fuller, Jimmy O’Brien, Marty Teal, Jeanne Ruefer, Thomas Plummer

Speakers: Kyle House, Phil Pearthree, Robert Bezek.
Breaking Down RISK: Resiliency, Integration, Sustainability and Knowledge in a Climate of Extremes

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10:00am - 10:10am
Introductory Remarks and description of Symposium Activities
FMA: Thomas Plummer P.E., CFM ARC: Marty Tool P.E., P.H., D.WRE

10:10am - 10:30am
Continuing the Legacy of Dr. Richard French’s Work - Inaugural FMA Mentorship Award
Julianne Miller, Desert Research Institute
A Scientific Approach to Managing Alluvial Fan Risk
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10:30am - 12:30pm

**Basic Fan Science** - What is a fan, classification, fan flood processes, fan formation, similar landforms, soils, geographic variations, impacts of underlying geology, climate
*Kyle House, Ph.D - US Geological Survey.*

**Flooding on Fans** - Water & debris floods, avulsions, mapping of historical fan floods, surficial geomorphic mapping & hazard classification
*Phil Pearthree Ph.D - Arizona Geological Survey*

**Flooding and Debris Flows on California Fans** - California alluvial fans: regional differences, surficial geologic mapping and debris flow assessment
*Jeremy Lancaster CEG – California Geological Survey*

**Flooding and Debris Flows on Arizona/Nevada Fans**
*Kyle House, Ph.D - US Geological Survey.*
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12:30pm - 1:30pm
Lunch Break - On your own

1:30pm - 2:00pm
Alluvial Fan Flooding and Semi - and Arid Land Hydrology
- active vs inactive alluvial fan mapping, geomorphic surfaces and
  soil parameters, debris flows, wildfire affects, sheet flooding
Julianne Miller, Desert Research Institute

2:00pm - 2:45pm
Current Research and Gaps - surficial data, modeling tools,
urban vs. natural systems, fan classification by process, flow attenuation
Jon Fuller P.E., R.G., P.H., D.WRE, CFM, M.S - JE Fuller

2:45-3:00
Break
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3:00pm - 3:30pm
Defining Risk on Alluvial Fans - Characterizing fan flood hazards, vulnerability and risk. Integrating hazard mapping, damage assessment and managing risk.
Jimmy S. O’Brien - Ph.D., P.E., FLO-2D

3:30pm - 5:20pm
Panel: How Does the Science Presented Today Inform Our Risk Assessment? - Question and Answer Discussion
Facilitated by Robert Bezek, FEMA Region IX Panelists: Above Speakers and Participants

5:20pm - 5:30pm
Closing Remarks
Thomas Plummer P.E., CFM on behalf of FMA and Arid Regions Committee of ASFPM