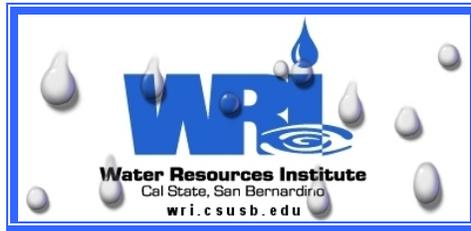


## Alluvial Fan Task Force



### California Department of Water Resources Project

**Minutes from Plenary Meeting #1  
December 7, 2007  
Riverside Flood Control District  
1995 Market Street, Riverside CA 92501**

**Members Present:** Riverside County Supervisor Marion Ashley, Kern County Supervisor Jon McQuiston, San Diego County Supervisor Bill Horn, Los Angeles County Supervisor Michael Antonovich, Danielle Borish, representing San Bernardino County Supervisor Paul Biane, Sergio Vargas, Georgia Celehar, Dusty Williams, Chris Stone, Sara Agahi, Paul Quill, Dave Mlynarski, Dale Casey, Tom Davis, Duane Young, Tom Scott, Norman Meek, Stephanie Pincetl, Jono Hildner representing Joan Taylor, Kathleen Webb, Tom O'Keefe, Marty Teal, Ralph Wagner, Eric Shamp, Scott Steinmetz, Lee Reader, John McCarthy, Mary Lou Mermilliod representing Mike Fox, Brian Moore, representing Ali Sahabi.

**State and Federal Representatives Present:** Tammy Conforti, Ricardo Pineda, Maria Lorenzo-Lee, Mark Stuart, Stephan Lorenzato, Scott Dawson, Pete Sorenson, Rebecca Wagoner, Greg Kryzs, Chris Adams

**Technical Consultants Present:** Doug Hamilton, Susan Lien Longville, Susan Carpenter, Cameron Barrows, Bo Cutter, Gigi Hanna, Tom Spittler, Jeremy Lancaster, Bill Short, Lisa Pierce, Kent Schofield, Suzie Earp, Boykin Witherspoon, Lynn Merrill

**Members Absent:** Paul Biane, Christine Sloan, Rick Iger, Mike Fox, Ali Sahabi, Mark Grey, Ray Torres, Joan Taylor, Mark Pisano, Mike Fox representing Vana Olson

**State and Federal Representatives Absent:** Ray Lenaburg, Mike Anderson, Dave Gutierrez

**Media Present:** Jennifer Bowles, George Watson, Guy McCarthy

**Others Present:** Mekbib Degaga, Paul Novak, Chris Champine, Chuck Lackey, Jane Block

**Meeting called to order:** at 9:29 a.m. by AFTF Facilitator, Susan Carpenter.

**Welcomes:**

- Dusty Williams, General Manager, Riverside Flood Control District
- Riverside County Supervisor Marion Ashley.
- Mark Stuart, Southern District Chief, Department of Water Resources (DWR)
- Ricardo Pineda, Chief, Floodplain Management Branch, Department of Water Resources (DWR) and AFTF Program Manager
- Susan Longville, Director, Water Resources Institute and AFTF Coordinator
- Susan Carpenter, AFTF Facilitator.

**Meeting Theme:** “The Big Picture” with introductory presentations by all members of the technical team.

**Presentations:** (All PowerPoint presentations are available to participants on the password-protected AFTF website at <http://www.alluvialfantaskforce.info> Individuals needing a new passwords or having trouble with their password should contact [ghanna@csusb.edu](mailto:ghanna@csusb.edu))

1. “Alluvial Fan Geology and Land Use Concerns” by Tom Spittler, California Geological Survey.

Main Points: Not all parts of alluvial fans are equally dangerous and geologic hazards change due to fires, storms and earthquakes.

2. “Using GIS to Raise Awareness of Flood Risks and Projected Growth,” by Lisa Pierce, GIS research associate, Water Resources Institute.

Main Points: Maps and GIS information can be helpful in showing risk factors in alluvial fan areas.

3. “Update of 2007 Fires,” by Chris Adams, Floodplain Manager, DWR.

Main Point: DWR is developing maps of the 2007 fires areas.

4. “Alluvial Fans and the Cost to Local Governments,” by Lynn Merrill, Owner, Lynn Merrill Consulting.

Main Points:

- Designs for future developments should consider maintainability and loss prevention from debris flows;
- There is a need to consider the Best Management Practices (BMP) for minimizing those flows while balancing development;
- There is a need for funding for maintenance and restoration that does not depend on state and federal agencies, and
- There is a need to be able to quickly recover and restore services to pre-event conditions in the event of multiple storm events.

5. “Virtual Tour of Riverside County’s Alluvial Fans and Developments,” by Mekbib Degaga, Floodplain Manager, Riverside County Flood Control.

6. “The Economic Picture,” by Bowman Cutter, Assistant Professor of Environmental Studies, UC Riverside.

Main Points:

- Flood damages costs are significant and will grow;
- Property tax revenues are the only reliable source of operations and maintenance costs, but they barely outpace construction costs;
- Project needs are larger than available funding;
- Developer fees, local bonds and state bond funds can fund capital costs; and
- Assessment districts can fund maintenance.

7. “An Ecological Perspective,” by Cameron Barrows, Research Associate, UC Riverside Center for Conservation Biology.

Main Points:

- Fans provide important ecological services to the immediate and larger region, including sand delivery, aquifer recharge, flood control, and nutrient and sediment transport for riparian habitats
- Offers critical connectivity between lowlands and uplands
- Habitat for sensitive species
- Not all alluvial fans are equal;
- Conservation needs can be addressed within the context of an alluvial fan’s function; and
- Protected fans can be viewed as assets to local and regional communities.

8. “Introduction to Formulating Mitigation Measures on Alluvial Fans,” by Doug Hamilton, Principal Engineer, Exponent.

Main Points:

- Floods on alluvial fans can be more hazardous than those for rivers;
- High populations already exist in alluvial fan areas;
- Alluvial fans are located in California’s highest growth areas;
- Fan areas have unique ecological value;
- Inactive fans can become active; and
- Alluvial fans can be future high hazard areas in the state.

9. “Regulated Land Use Planning,” by Boykin Witherspoon III, Director, Center for Geographic Information Science and Research, Cal Poly Pomona.

Main Points:

- Human values that drive land use planning are tied to our tolerance of risk, and that risk is equal to probability multiplied by the consequences.
- A “risk dial,” can be used to illustrate reflect our collective attitude toward risk.

10. “Historical Perspectives on Flooding in Southern California,” by Kent Schofield, History Professor Emeritus, and Suzie Earp, WRI Archivist/Historian, of California State University San Bernardino.

Main Points:

- Historical information about flooding is limited, with records dating back to the late 1700s;
- Historical records suggest that Southern California has a history of periodic flooding on alluvial fans and downstream alluvial fan floodplains;
- High velocity, debris-laden flows on alluvial fans are often triggered by a series of storms following wildfires at higher elevations;
- Historical records show that serious flooding can also be triggered by small isolated rain events;
- Small isolated flood events can cause major damage.

### **Task Force Member Work Session:**

Task Force members working with other members of their interest group were asked to discuss “the issues and concerns you would like to see the Task Force address as it develops planning guidelines and a model ordinance.”

Below are their answers.

### **Supervisors**

- Needs to be practical and able to work within flood control ordinances
- Ordinance that crosses jurisdictional lines (federal/state/local)
- Needs to be balanced between development and environmental habitat
- Should include appropriate mitigation measures to achieve balance. (local input)
- It cannot be one-size-fits-all
- Regulatory roadblocks to constructing and maintaining flood control projects
- Need to define “what is acceptable risk.”
- There needs to be a weighted hierarchy of risks/values (not all risks are created equal); life and property are first and second, respectively.
- Balancing property rights with other goals
- Take wildfires into flood risk evaluation; Fire=Flood
- Any ordinance needs an implementation plan
- Consideration of risk should be locally driven
- Density bonus for mitigation or avoidance?

### **State and Federal representatives**

- Must communicate risk and have evacuation plans. Need a “Smokey Bear” for alluvial fans
- Need a cumulative analysis (of impact of development). Need to know what is already built, proposed or planned but not built, and those merely proposed.
- Need to identify limits and co-mingling of fans to determine those that are active, remnant, or historic (via geologic geomorphic studies)
- What is the incentive/benefit to adopt the ordinance? Should link it to NFIP and CRS (link to existing hazard mitigation plans)
- How to manage and minimize the loss of water, including infiltration and flooding
- Need database/communication on multiple projects and the mitigation required

- Ordinance must tie in with adopted rules/regs, including general plans, zoning ordinances and MSCP/MSHCP
- Require that AB2141 (local hazard mitigation plan) be adopted in a safety element of a General Plan.
- Need to know what are the properties/processes between upland and fans that contribute to debris flow and flooding? This should tie in with geologic studies.
- What are the debris flow quantities? What are the methods to handle different flow sizes/rates?
- Incentives to minimize risk (or maximize safety)
- Incentives to preserve habitat
- Incentives to include water infiltration
- Need a methodology to address the risk (developed by technical experts on team), and adopting standards and protocols
- Need to educate public officials on federal and state programs that could reduce flood damages.

### **Flood Control representatives**

- Must ensure compatibility with environmental permits, regulations, biological resources (MSCP)
- Need a simple, effective way to communicate residual risk: pre-project (with the developer), post-project (with the owner), and long-term (future owners).
- Planning/flood control should be analyzed on a watershed-wide basis.
- Is a “100-year” protection enough for alluvial fan protection compared to requirements for riverine flooding (because of increased uncertainty, excessive debris).
- Need long-term maintenance funding (O&M)
  - Special districts
  - Need sign-off from environmental regulatory agencies for long-term O&M

### **Land Use representatives**

- Consider the ecosystem values
  - Income streams
  - Recharge and flooding; water value
- Must integrate Ag into the Alluvial Fan process
- Must consider Ag value in the alluvial fan ecosystem and solution
- Alluvial fan concerns need to be balanced with preserving land values
- Ag and conservation should be used as a tool for critical habitat and flood control
- Need to determine the hazard independent of land use value
- Need to consider how to inform the public of alluvial fan threats, that hydrological threats are not just alluvial fan related, and keep them informed of threats w/ maps and other public sources.
- Consider the affect of Prop. 13 on fiscal costs and the distribution of costs.
- How to integrate the unpredictable nature of water course with developments’ plans?

- Environmental impact fees are internalized
- Consider amenity values in alluvial fan solutions
- Water supply and alluvial fan flood control
- Need better integration of impacts, mitigation and solutions
- There is a disconnect between land development, hazards and resource management
- Need to consider “what is best use of land?” Does “highest/best use” need redefinition?
- There needs to be equity in costs of alluvial fan management—if you live there, you pay.
- Need to integrate wildlife/ ESA in alluvial fan planning

### **At-Large representatives**

- Risk management
- Financial tools for risk management (i.e., catastrophe bonds)
- Need to leverage market resources
- Insurability as a whole and jurisdictionally
- Need financial incentives for risk management in land use regulation
- Need a Rating Performance incentive for risk management that is a percentage of FEMA and OES cost recovery
- Use the Community Wildfire Protection Plan as an incentive in land-use regulations
- Consider: Where should we build? Perhaps provide open space in alluvial fan flooding-prone areas
- Need for education about risk management choices (beyond just premiums)
  - Solutions that don’t require legislation
  - The value of risk management investments
  - Indirect costs valuation
  - Personal accountability
  - Sustainability of disaster funding availability
- Need valuation of alluvial fans, forests, flood plains as part of state’s infrastructure

### **Development/Land Interests**

- Consideration to private property rights
- Land use policies should consider
  - Density transfers
  - Financial compensation
  - Development/financial incentives
  - Natural resource value and compensation
  - Open space credit/value
- Governmental regulations issues include:
  - Consistency between agencies and regulations
  - Expedited processes
  - Open door dialogue

- Reasonable alternatives
- Regulating flows, debris with consistency
- Multi-use facilities managed and regulated by regional of multi-agency organization(s) vs. restrictive individual uses/regulators
- Need clarity of governmental priorities as it relates to:
  - Healthy forest
  - Environmental mitigation
  - Acceptable risks
- Do and/or how do voter initiatives play into changing policy and regulations?
- Identifying diversity of the issue; a need for careful review of each case: one size does not fit all; areas of concern are unique and deserve individual evaluation.
- Need to identify all regulating agencies having jurisdiction or reviewing authority.

**Meeting Adjourned: 3:10 p.m.**

Minutes respectfully submitted to the AFTF members by Gigi Hanna, AFTF Administrative Coordinator. Please contact [ghanna@csusb.edu](mailto:ghanna@csusb.edu) if corrections are necessary.