

California

Alluvial Fan Task Force (AFTF)

Headwaters to Ocean (H2O) Conference Oc
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How did the Alluvial Fan Task Force (AFTF) come into existence?

Funded by Pre-Disaster Mitigation (PDM) planning project from FEMA and a state match from DWR as a result of AB 2141

*Implemented a recommendation of the
Floodplain Management Task Force*



TASK FORCE MEMBERS (appointed by DWR)

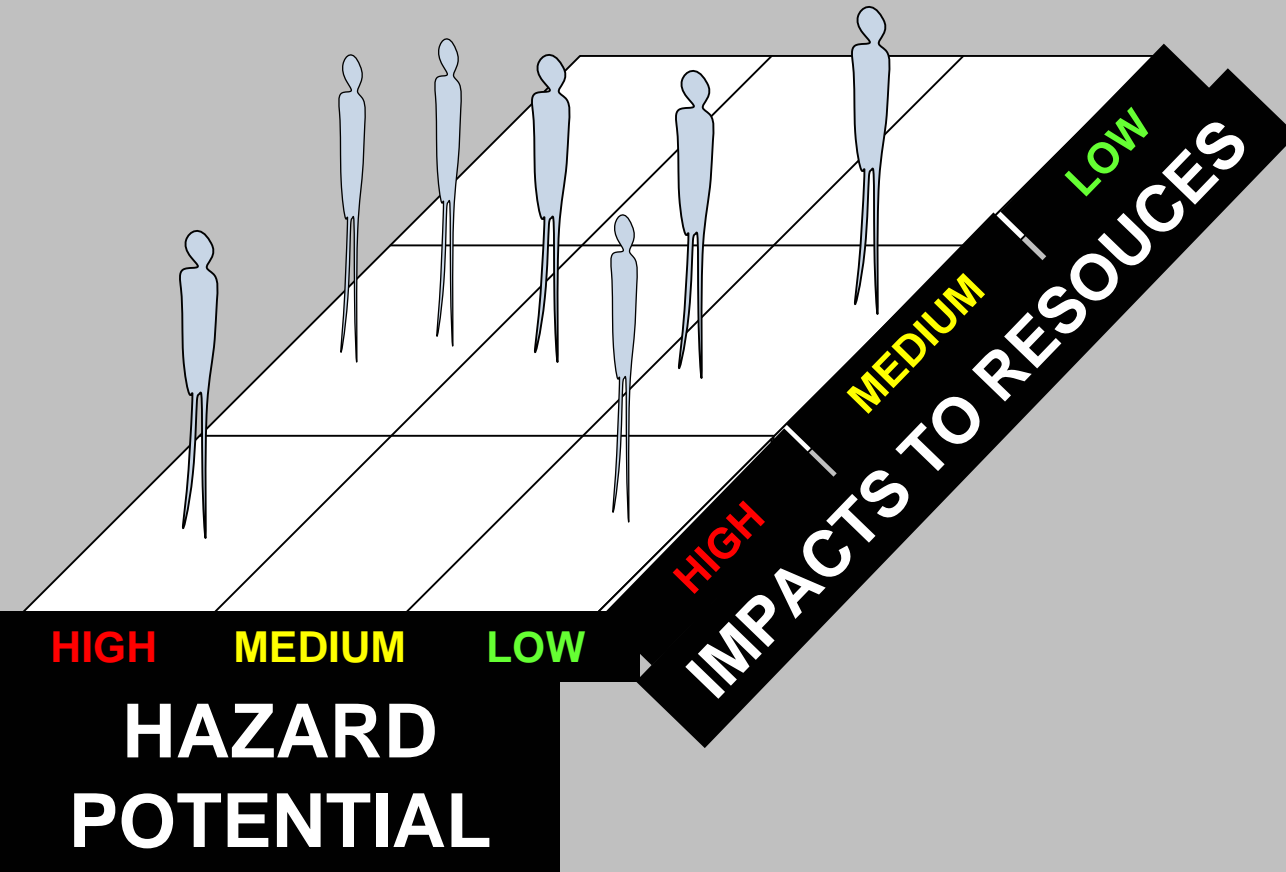
- Five county supervisors
- Development community
- Flood control and public works agencies
- Environmental community
- At-large members



TASK FORCE GOALS

1. Ensure public health and safety
2. Minimize public and private losses and damages from the natural hazards that may be present on alluvial fans
3. Consider environmental resources and other values of floodplains

Potential hazards and impacts to resources vary from place to place



TASK FORCE OUTCOMES:

1. Local planning tools for pre-project screening help communities identify long-term risks, benefits, and costs of developing on alluvial fans
2. Model Ordinance suggests procedure for using pre-project screening tools
3. Final Report presents Task Force Findings & Recommendations to DWR



LOCAL PLANNING TOOLS & MODEL ORDINANCE

Non-prescriptive: flexible designed for local governments to adapt to their own conditions

Implementable: does not expand, duplicate, or reduce the legal requirements under existing state and federal laws

Sustainable: encourages multiple benefits ensuring future generations can meet their needs

Tool-based: methods are unique to the alluvial fan environment and offered to local governments and flood management agencies to use at their discretion in working with developers and property owners



LOCAL PLANNING TOOLS FOR ALLUVIAL FAN PRE-PROJECT SCREENING

STEP 1 Site on FEMA mapped floodplain with or without certified flood protection	STEP 2 Relative flood hazard potential on site	STEP 3 Other hazards on site	STEP 4 Beneficial resources on site	STEP 5 Multi-objective opportunities on site	STEP 6 Problem-solving economic strategies for site
<p><i>Flood-Zone (FZ) Tools</i></p> <p><u>FZ1</u> - FEMA Special Flood Hazard Area (SFHA)</p> <p><u>FZ2</u> - Existing flood control structure certified to provide adequate protection from hazards</p>	<p><i>Alluvial Fan (AF) Tools</i></p> <p><u>AF1</u>- Alluvial fan site underlain by quaternary sediments</p> <p><u>AF2</u>- Relative hazard potential of surfaces for flooding, debris flows & uncertain hazards</p>	<p><i>Multiple Hazard (MH) Tools</i></p> <p><u>MH1</u> - Active faults</p> <p><u>MH2</u>- Seismic shaking</p> <p><u>MH3</u>- Rockfall and landslides</p> <p><u>MH4</u> - Minerals and unstable geological units</p> <p><u>MH5</u>- Wildfire hazards</p> <p><u>MH6</u>- Other local hazards</p>	<p><i>Multiple Benefit (MB) Tools</i></p> <p><u>MB1</u> - Recharge capacity</p> <p><u>MB2</u> - Ecological value</p> <p><u>MB3</u> - Mineral resources</p> <p><u>MB4</u> - Culturally significant zones</p> <p><u>MB5</u> - Current and future land uses</p>	<p><i>Sustainability Analysis (SA) Tools</i></p> <p><u>SA1</u> - Relative land capability for land use</p> <p><u>SA2</u> - Relative land suitability for land use</p>	<p><i>Economic (ECON) Tools</i></p> <p><u>ECON1</u>- Costs & benefit analysis</p> <p><u>ECON2</u>- Long-term operation and management</p> <p><u>ECON3</u>- Transfers and purchases of development rights</p> <p><u>ECON4</u> – Other funding</p> <p><u>ECON5</u>- Disaster clean-up</p> <p><u>ECON6</u>- Asset management</p>

FEMA Guidelines for Determining Flood Hazards on Alluvial Fans
FEMA Appendix G: Guidance for Alluvial Fan Flooding Analyses and Mapping



Flood Management (FM) Tools

- FM1- Identify the presence of an alluvial fan
- FM2- Identify existing hazards on alluvial fan area
- FM3- Define active and inactive fan areas
- FM4- Establish the appropriate level of hazard protection
- FM5- Identify studies necessary to demonstrate proposed development would be protected from the design flood
- FM6- Incorporate multiple objectives in the mitigation measures

Model Ordinance

Community must consider the following alluvial fan factors in land use process (not deterministic)

Flood potential and other risks on proposed site?

Impacts to beneficial values?

Opportunities for multi-objective strategies?

Minimize risk and reduce future costs

Conserve beneficial values

Public Review Process for Task Force

1. Integrated Approach for Hazard and Resource Evaluation for Sustainable Development on Alluvial Fans

2. Model Ordinance Governing Planning and Development on Alluvial Fans

3. Task Force Findings and Recommendations

Next Steps

- DWR will work with the 10 Southern California counties and other agencies to disseminate AFTF products
- These outreach activities will begin once the AFTF products are finalized, that include the Integrated Approach, Model Ordinance and Recommendations Report

For copies and questions?

Contact AFTF Coordinator

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