

The Economic Picture

Alluvial Fan Task Force
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The Economic Picture...

- Focus on San Bernardino and Riverside Counties.
- Costs of flood damages.
- Finances of County flood control agencies.
- Flood control financial demands.
- Funding mechanisms for alluvial fan flood control.

Counting Natural Disaster Economic Impacts.

Losses

- All direct and indirect costs.

Costs

- Losses that are reimbursed by insurance or government

Direct Losses

- Cost of physical damage (to structures/people) from event.
- Will exceed the costs.

Indirect Losses

- Temporary unemployment and business disruption.

Indirect losses likely to have a large impact on local economy because they are usually not reimbursed

Historical Flood Damages are Large.

Flood
damage
counting

- Cannot separate out types and geographic area of floods.
- Damages would be higher with current development.
- Property damages and debris removal costs.

Current
Dollar Costs

- (excludes 2003 damages)

Indirect costs of floods are not included and are likely large.

Historical Flood Damages are Large.

Southern
California

- Greater than \$1.3 billion.

SB & Riverside
Counties

- Greater than \$900 million.
- High proportion of fan flooding.

Indirect costs of floods are not included and are likely large.

How Do We Pay For Flood Management?

Property Taxes

- Based on house value not flood risk.
- Can be used for capital, maintenance and operations.

State and Federal Aid

- Volatile.
- Often restricted to capital costs.

Developer fees.

- Developers pay portion of fees.
- Usually covers capital costs.

- 1) Limited pool of funds for maintenance and operations.*
- 2) Growing stock of infrastructure to be maintained.*

Real Flood Control Revenues Are Relatively Flat.

After adjusting for construction inflation.

Property Taxes

- Riverside property tax revenues flat, \$31 million in 1993, \$32 million in 2004.
- San Bernardino property tax revenues flat, \$24 million in 1993 and 2004.
- Current peaks likely to decline with real estate market.

All Revenues

- Riverside total revenues flat, 69 million in 1995, 73 million in 2006.
- San Bernardino total revenues flat, 46 million in 1993, 43 million in 2003.
- Major increases in state/fed aid last few years.

Major revenue sources are flat when compared to construction cost indexes.

Flood Management Demands Exceed Available Resources.

Project Backlog	<ul style="list-style-type: none">• \$2 billion or more in Riverside, greater than \$50 million in San Bernardino.
Water Quality	<ul style="list-style-type: none">• Collect stormwater. Responsible for discharge to receiving waters. Infiltration, Reuse, Recycling.
Multi-objective Projects	
Maintenance Costs	<ul style="list-style-type: none">• “Softer” projects that incorporate vegetation/multiple-use cost more to maintain.• Steady increases in infrastructure.
Legal Costs	<ul style="list-style-type: none">• Colonies settlement in San Bernardino cost \$102 million.



Additional Funding Mechanisms.

Drainage Plan Fees *Local Area Solutions*

- Developers pay stormwater fee.
- Used to fund initial infrastructure.

Stormwater Bonds *Regional Solutions*

- Los Angeles Proposition “O.”
- Flood protection, water quality and recreation objectives.
- \$500 million bond funding.

State Funding

- Tap current and future bond measures for multi-use projects to protect fan developments.

Alternative Funding Mechanisms: Assessment Districts.

Types

- Geographic hazard, stormwater, or landscape maintenance district.

Purpose

- Ongoing maintenance costs.
- Cleanup after flood/debris events.

Process

- Form at time of development or existing communities can buy in.

Funding

- Annual fees for district area to build up contingency fund.

Examples

- Perris stormwater assessment district.
- GHADs.

Additional funding tools are dedicated to maintenance

Later, There Will Be a Test, Remember:

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