



12:04PM

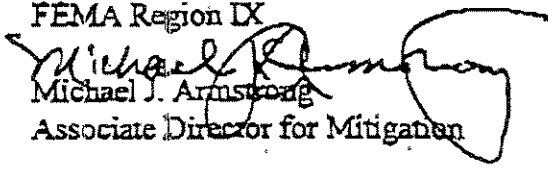
P. 2/4

Federal Emergency Management Agency

Washington, D.C. 20472

JUL 22 1998

MEMORANDUM TO: Martha Whetstone
Regional Director
FEMA Region IX

FROM: 
Michael J. Armstrong
Associate Director for Mitigation

SUBJECT: Use of HMGP Funds for Acquisition or Relocation of
Residential Structures Subject to Landslide Hazards

The State of California has requested guidance regarding the use of FEMA-1203-DR-CA Hazard Mitigation Grant Program (HMGP) funds for projects that mitigate property damage resulting from landslides. The purpose of this memorandum is to provide the State guidance to deal with this unique situation by providing them the latitude to select and prioritize projects and certify that they are cost-effective.

The following guidance pertains to proposed projects which include purchase or relocation of residential structures threatened or affected by landslides:

If a community has determined, based on sound professional judgment, that a structure is subject to imminent landslide risk to the degree that it is not habitable, an acquisition or relocation project is considered cost-effective if the HMGP project cost (including federal and non-federal share) is less than or equal to \$140 per square foot of enclosed, heated living space in the structure.

All relevant FEMA and HMGP acquisition/relocation guidelines apply. These include provisions for deed restrictions on acquired property, potential relocation assistance for displaced tenants, and procedures to avoid duplication of disaster assistance benefits.

FEMA will provide technical assistance as requested by the State for project issues related to this guidance. Please direct questions or comments on this policy to the office of Mr. Robert Shea, Program Support Division Director, Mitigation Directorate, Federal Emergency Management Agency, 500 C Street, SW, Washington, DC 20472; telephone (202) 646-4621.



12:05PM

Federal Emergency Management Agency

P.3/4

Washington, D.C. 20472

JUL 22 1998

MEMORANDUM FOR:

FILE

FROM:

Robert F. Shea
Director, Program Support Division

SUBJECT:

Explanation of Benefit-Cost Calculations for
Landslide Acquisition and Relocation Policy

Background – Cost Effectiveness

Cost effectiveness determinations for hazard mitigation projects are ordinarily based on calculating the projects' effects in reducing the cumulative costs of *repetitive events* such as floods, earthquakes, hurricanes or wildfires at a given location. For this memorandum, landslides are generally presumed to be one-time catastrophic events.

For the purpose of this memorandum, a property is considered at imminent risk if the community has determined it uninhabitable because of the risk, or if a qualified engineer certifies that a landslide will result in destruction of the property within one year. There must be documented evidence of the risk determination. This may take the form of "red-tagging", a report from an engineer, or a evidence that a homeowner has signed a waiver indicating his wish to inhabit a structure that has been deemed uninhabitable by "red-tagging" or other means. In this case, no discounting of benefits is necessary. The benefit-cost ratio is simply the replacement value of the structure and contents, and displacement costs (capped at \$140 per square foot of enclosed, heated area), divided by the project cost. The calculation and guidelines are given below. If the benefit-cost ratio is greater than 1.0 (i.e. the costs are less than or equal to the benefits), the project is considered cost effective.

Basis for Calculation

A landslide acquisition or relocation project is considered cost effective if the project cost is less than the value of the elements listed below.

Replacement Value of Structure	@ \$100	per square foot	[note 1]
Replacement Value of Contents	@ \$ 30	per square foot	[note 2]
Other Costs	@ \$ 10	per square foot	[note 3]

(For example, the value of a 2,000 square foot structure, its contents, and displacement cost is calculated by multiplying 2,000 s.f. X \$140 per square foot for a total value of \$280,000. In this case, project costs – including land, legal fees, etc. – may not exceed this number for the project to meet the cost effectiveness requirement of the Stafford Act)

Notes

1. As noted elsewhere, the square footage calculations are based on heated, enclosed, living area. For the purpose of this memorandum, standard replacement value is set at \$100 per square foot of living area. This number based on values in the Marshall & Swift Residential Cost Handbook. The value is drawn from the "Excellent Quality" Single-Family Residential section of the Handbook, recognizing that not all of the potential acquisition/relocation properties will be in this category. No additional value shall be added for unusually expensive structural details or unusually expensive household contents. The value of land shall not be included in this calculation.
2. Standard replacement value is set at \$30 per square foot in accordance with FEMA practice and the Flood Insurance Administration database. A *minimum* of \$20,000 contents value per structure shall be used.
3. Other costs include displacement, cleanup, etc., and are set at \$10 per square foot of living area. This figure is based on \$2 per square foot per month rental cost (the cost of alternate living quarters), based on a displacement of three months. The additional \$4 per square foot is an allowance for additional one-time displacement and cleanup costs a homeowner may pay as a result of a landslide.

Please direct questions or comments on this policy to the office of Mr. Robert Shea, Program Support Division Director, Mitigation Directorate, Federal Emergency Management Agency, 500 C Street, SW, Washington, DC 20472; telephone (202) 646-4621.

Cc: FEMA Region IX
CA OES