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Financing Disaster Mitigation, Preparedness, Response, and Recovery

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A disaster can result in severe economic consequences for an afflicted area. State and local monies deplete rapidly, costly liability demands arise in court, and insurance claims increase quickly, placing the community in an unexpected economic crisis. After the May 1983 earthquake in Coalinga, California, the city manager noted: "One of the most important things to learn about managing an emergency is that costs will skyrocket, and property values will fall, as will sales tax revenues, if there is much damage to commercial buildings." The city manager also stated that, "to run the city and pay for the earthquake, knowing about and working with the Federal Emergency Management Agency (FEMA) and the state are most necessary."²

More than 60,000 families suffered the consequences of natural and man-made technological disasters and received federal help in 1983, an average year of major disasters. FEMA responded to 21 major disasters declared by President Reagan during the year, which amounted to the distribution of more than \$1.1 billion.³ The money was used to help citizens recover and to supplement repair of state and local government facilities. Severe winter storms and flooding in California were the most costly natural disasters requiring federal assistance in 1983 with the federal government paying out an estimated \$308 million to more than 17,000 families. During the same year, the private insurance industry nationwide paid record damage claims of \$1.9 billion.⁴

But not all disasters are federally declared. Federal assistance only becomes fully available with a presidential approval requested by a governor. Nevertheless, communities may not receive any aid from the federal government, long considered the first source of funds by unprepared states and communities. FEMA statistics indicate that from April 1, 1974, to September 30, 1983, only 59 percent of requests by state governors for a presidential disaster declaration were approved.⁵ With 41 percent of the requests being turned down, communities with no financial contingency plans were placed at considerable financial risk. For example, the city of Rancho Palos Verdes, California, found the cost of paying for a slow moving landslide over a 10-year period to be in the millions of dollars and no federal disaster aid was approved. Landslide litigation cost the county government more than \$9 million.

How does a community government finance disaster losses when little or no state and federal aid is ap-

proved? Further, what financing devices are available at the various stages of disaster? Our purpose is to examine the financing alternatives that can be used in the various stages of emergency management: disaster mitigation, preparedness, response, and recovery. Examples of financing devices to be examined include mutual aid compacts, joint powers agreements, various types of bonds, insurance programs, tax anticipation notes, and budget transfers. These financing instruments are primarily used to handle conventional community needs rather than natural and technological emergencies. It is difficult to earmark these revenue sources for emergency purposes when so many other demands are made on community leaders for these funds.

Generally, there has been very little written on disaster financing and cost recovery in emergency management.⁶ More research and analysis is needed to further identify and list which devices appear most appropriate for these four phases of emergency management. We will first examine, for purposes of background, federal and state participation in financing emergencies and then we will turn to alternative financing devices available to local governments.

Direct Federal Assistance—FEMA

FEMA founded in 1979, received its enabling authority through the Disaster Relief Act of 1974. Its directive is to organize and coordinate federal activities dealing with major emergencies. To help enhance organizational goals, FEMA created disaster assistance programs divided into public and individual aid. Public help for governments to repair bridges, buildings, and other facilities is 75 percent federally funded. The federal segment reimburses state and local governments upon completion of repairs or restoration. Local governments are obligated to find the other 25-percent matching funds from their own resources unless the state grants or loans them the necessary funds. FEMA does not compensate for damage to public facilities that

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have not been properly maintained by the state or local government. Furthermore, FEMA compensation covers the cost of replacement and not improvements or upgrading of the facility.

Other federal agencies that offer public assistance include the Corps of Engineers (COE), Soil Conservation Services (SCS), Federal Highway Administration (FHWA), and Department of Education (DOE) for the repair or restoring of elementary and secondary school facilities. These disaster relief programs are 100 percent federally funded, except some soil conservation programs which are funded on an 80-percent federal and 20-percent state and local basis.

FEMA coordinates but does not fund disaster assistance provided by the Small Business Administration (SBA) and the Farmer's Home Administration (FmHA). The FmHA provides emergency assistance in the form of loans to citizens who own or operate a farm business. FmHA's loan program is one of the few that grants aid to victims of isolated disasters, when a disaster does not qualify for major federal assistance.

SBA offers homeowners loans up to \$50,000 for structural repairs, and loans up to \$10,000 for personal property losses, with a combined maximum loan of \$60,000. Renting victims are eligible for loans up to \$10,000 for damaged or lost personal property. The SBA offers business loans of up to 75 percent of the loss, or \$500,000 for real property, equipment, inventory, and the like. For working capital, which could have been provided had the disaster not occurred, the SBA offers businesses an Economic Injury Disaster Loan, also up to \$500,000.⁷

In addition to FEMA offering public and individual disaster aid, grant-in-aid funds can also help pay for losses. These revenues can come from revenue sharing, the Department of Housing and Urban Development, and the Department of Transportation, including the Federal Highway Administration (FHWA). Grants for disaster mitigation and preparedness can be used by a flood control district. These revenues can come from the following sources: (1) U.S. Soil Conservation Service, (2) U.S. Corps of Engineers, and (3) Federal Highway Administration.

State Participation in Financing Emergency Management

Several states have offices of emergency services (OES), offices of civil preparedness, or divisions of emergency or disaster services, all with the function to organize, coordinate, and implement statewide disaster assistance programs. The director of these offices usually work with the governor's office to mitigate the occurrences or minimize the effects of emergency situations. In the event a situation becomes a disaster beyond the capability of the state, the director may advise the governor to use the Interstate Civil Defense and Disaster Compact or proclaim a state of emergency, entitling the state to possible federal assistance if the president approves the disaster proclamation.

Most states have enacted the Interstate Civil Defense and Disaster Compact. Developed in the early 1950s, this compact has fairly uniform provisions for declaration of emergencies and entering into agreements with bordering states, with the governor typically being afforded full discretion.⁸ It is a form of a mutual aid agreement that authorizes a state to enter into a bilateral or multilateral agreements with its neighbors. A mutual aid agreement allows one government agency to come to the aid of another upon request. There is considerable variation in approach as to participants. The compact is not a national agreement to which all states are members. There is a lack of effective interjurisdictional coordination among agencies within and between states.

Nevertheless, the strongest relief tool in many states is the mutual aid program, such as the one in California founded in 1950 and strengthened in 1970. It is called the California Disaster and Civil Defense Master Mutual Aid Agreement. Mutual aid may be used in either local or state emergencies to provide for combined resources and personnel to save lives and reduce damage. Mutual aid programs can work on a city-to-city, city-to-county, regional, or state-local relationship. Each level can provide assistance up to but not including a point of unreasonably depleting the assisting agencies' resources. There is no cost reimbursement to assisting agencies unless otherwise specified in the agreement. While states can use these agreements to assist local governments, state and local governments still need to understand the importance of the financing alternatives at various stages of disasters, particularly since federal aid is not assured.

Disaster Financing by Local Governments

Local governments have the first responsibility of handling the actual operations of emergency management in a disaster. The following four factors are important in how a community government approaches the financial consequences of a disaster and use of various funding alternatives: (1) loss of tax base particularly in terms of property tax; (2) loss of business affecting the source of sales taxes; (3) amount of money the local government has borrowed in relationship to taxable property (debt ratio); and (4) the number of income sources such as service charges.

The tax base, or the amount of taxable property within the community, determines a major portion of income to the local government. The destruction of the tax base, such as that in Baytown, Texas, as a result of floods, renders the local government unable to recover without outside help. Fire did most of the property damage making recovery difficult in the 1906 San Francisco earthquake. A community with rich revenue producing industries—such as oil refineries and industrial-commercial property—may have greater cash reserves and tax revenues to borrow money and not be as concerned about financing recovery. Of course, this assumes the industries and commercial enterprises are not destroyed by the disaster.

The loss of business and the time of recovery results in a loss of sales taxes and other state subvention monies, such as gas tax, registration fees, and the like. For example, the flooding damaged business in Times Beach, Missouri, and the chemical spill that followed prevented recovery. Similar to the events in Love Canal, New York, the federal government bought Times Beach to prevent further public health problems and insurance losses.

In addition, the existing credit rating of the city and size of the local debt will be factors in determining the government's ability to borrow funds to meet short- and long-term needs at a reasonable interest rate. A community debt ratio should reflect sound fiscal management and audit standards suggested by the Municipal Finance Officers Association (MFOA) with respect to the amount and terms of any loans. It would help if counties and cities all had fixed asset accounting systems—a listing of all property and facilities, estimated value, and depreciation schedule. This would help elected officials and staff to understand the replacement value of facilities should they be destroyed in a disaster. If federal assistance is forthcoming to replace lost facilities, FEMA staff can estimate the value, but this may not be as precise and will take a longer period of time. As indicated earlier, the federal government can replace a lost facility but cannot fund the replacement at a higher standard. For example, the replacement of a bridge may be the opportunity to expand the number of lanes and increase height above the flood plain. The cost of achieving this upgrade is the responsibility of local government.

Also, a community's financial condition prior to a disaster may depend on its use of service charges and enterprise funds. Some communities are better prepared to finance lost services and facilities, because the service charges collected over time include not only the operation and maintenance of a facility but also capital replacement costs. For example, if a community water treatment facility worth \$20 million is destroyed, both its capital improvement program budget and general funds may not be enough to replace the facility without federal and state aid. Had the fee structure included the replacement cost as well as operation and maintenance funding and had a fixed asset system amortized the facility's depreciation value, the local government would have been better able to appropriate replacement costs.

What then are some of the funding alternatives a community government can use to achieve financial recovery, particularly without state or federal aid?

Fund Transfers: From General or Special Funds

Undeclared disasters have taken the greatest toll on unprepared local governments. Communities with some contingency funds in their budgets would at least be able to transfer funds to cover the initial costs of response and recovery. These funds should be between 3 and 7 percent of the city's total revenue and not spent unless

voted on by the city council or similar body. A vast majority of cities have reserves in their general funds, but these are for revenue shortages, not initially intended for disasters. For example, one city with a population of 35,000 and a \$20 million budget noted that, should an emergency strike with considerable damage and federal-state funds were unavailable, the following sources of revenue would be used:

First Line Emergency Funding From	
the General Fund Account	\$525,000
Water Capital and Replacement Reserve	\$500,000
Sewer Capital Replacement Reserve	\$930,000
Internal Loans from Facility Reserve	\$690,000
Library Reserve Fund	\$605,000
	<hr/>
	\$3,250,000

The combined total of all reserve funds not appropriated in this sample community would be more than \$3.2 million. Long-term depletion of these reserves in an emergency probably would require a tax-rate increase in order to replace these long-term reserves. Specialized funds such as library reserves, would become a valid source of short-term loans to pay for emergency needs of the community. Should subsequent federal and state relief funds become available, short-term loans taken from special funds then could be paid back.

State gas tax funds, motor vehicle registration fees, and other specialized funds returned to local governments from the state can be an additional source of revenue. For example, Rancho Palos Verdes, California, spends \$250,000 a year from state gas tax funds to keep open one mile of a major highway in the city. The city also used block grants to hire a geologist to study how to stabilize the landslide area to prevent the loss of more homes valued between \$500,000 and \$1 million. It also has a litigation reserve of \$500,000 to cover claims of some 30 property owners in the landslide area. Following the last landslide disaster, the property owners sued on the grounds that the city and county did not take appropriate steps to prevent the slide.⁹

Mutual Aid Agreements

In addition to state mutual aid agreements, local governments also have a series of agreements with each other to provide assistance in emergencies. Depending upon the agreement, mutual aid costs may or may not be paid back to the government entity providing assistance. The degree of support for mutual aid may also depend on the danger the assisting agency perceives its employees may encounter. For example, a chemical spill may result in workmen's compensation and liability claims to the assisting agency, and legal and financial agreements must make these conditions clear.

Joint Powers Agreements (JPAs) or Joint Powers Insurance Agreements (JPIAs)

JPAs and JPIAs are agreements local governments enter to consolidate cash reserves, unlike mutual aid, to

pay for needs such as joint use of public facilities and employee injury claims. They are also valuable in spreading the costs of an emergency by tapping into a pool of revenue that can be paid back over a period of time. A JPA/JPIA agreement allows several cities or counties to be self-insured for matters such as liability issues of workmen's compensation, disability insurance, lawsuits for damages, or providing funds to handle emergencies. The JPA can allow the financing of lost community facilities, particularly if no federal or state funds are available. These funds also can be used to meet the 25-percent local requirement for federal disaster relief under the 1974 Disaster Relief Act.

Tax Anticipation Notes

Tax anticipation notes permit state and local governments to borrow funds for a short period of time. The funds are paid back to lending institutions when property or sales tax revenues are received. Some communities have borrowed money by use of tax anticipation notes in expectation of receiving federal or state disaster aid. This type of note was very helpful in enabling Salt Lake City respond and recover from a major flood.

Salt Lake City, Utah, experienced a major flood in winter 1982-1983 from melting snow pack which resulted in converting the main street into a major dike to direct the flood waters through the city.¹⁰ The city administration received 75 percent (\$3.6 million) of the recovery expenses from FEMA because it was a federally declared disaster and 12.5 percent (\$600,000) from the state and another 12.5 percent (\$600,000) from the county. However, before federal and other monies arrived, the city had depleted all of its general fund revenue reserves and, at one point, was down to a "0" balance. The city used (1) tax anticipation notes, and (2) raised taxes to pay for the costs until outside money arrived. The administrative time and interest paid on these notes did not receive compensation by the federal or state governments. Even though this dike resulted in no major loss to property, businesses sued the city for loss of revenue. Flood insurance did not pay for the loss of business, only for property loss. The city also received insurance claim funding and paid that back to FEMA as part of the 75-percent funds received. Tax anticipation notes could also be used to pay the costs of court judgments and litigation should the businessmen prevail in their claim against the city.

Municipal Bonds

Bonds, as a form of debt financing, usually require voter approval and take longer to implement. They may best be used in mitigation or preparedness of emergency management or in the recovery to pay back long-term costs of damages.

The city of Phoenix, Arizona, used bonds as a means of selecting what, how, and where to mitigate potential disasters.¹¹ In 1979, voters approved 16 bond proposals for a total of \$353 million to cover improvements in

areas such as flood control, water quality, and solid waste disposal. As a result, city officials were able to use the lead time to prepare hazard mitigation strategies.

Insurance Programs

Aside from local government insurance agreements with private companies for emergencies such as fire, earthquake, and windstorm coverage, the federal government dominates the area of flood insurance.¹² Flood insurance standards are established by the federal government. Its involvement in local flood plain regulation is a direct result of the National Flood Insurance Program (NFIP). This program was established in 1968 and strengthened by the Flood Disaster Protection Act of 1973. The NFIP is administered by the Federal Insurance Administration (FIA) which is part of FEMA. Flood-prone areas within communities are shown on maps and NFIP makes federally subsidized flood insurance available to property owners in these flood hazard areas. Adoption and enforcement of flood plain regulations is the direct responsibility of city and county government.

The National Flood Insurance Program can be a major factor in enabling communities to recover from a disaster. Private lending institutions often require mortgage and flood insurance as well as fire insurance to protect their investment. Communities that fail to comply with the Federal Insurance Administration may find that none of the banks or savings and loan institutions are willing to finance private property. In the case of Baytown, Texas, the Brownwood subdivision was destroyed by Hurricane Alicia and, rather than rebuild in a flood zone and repeat the process of reinsuring property that likely would be lost in the near future, the National Flood Insurance Program offered to buy most residences. City land-use policies could help in insurance costs by using ordinances to prohibit rebuilding in known hazard areas.

Cities failing to comply with the NFIP can be suspended. This was the case for the city of Tarpon Springs, Florida, as of December 1983.¹³ The city did not enforce its flood plain management measures and more than 1,000 flood insurance policies, representing \$65 million in insurance coverage, will continue until they expire but cannot be renewed. The city allowed the construction of a large number of residences that have their lowest floors built at elevations below the established flood levels. Also, no new flood insurance policies can be sold in Tarpon Springs.¹⁴ Suspension follows provisions of Section 202(a) of Public Law 93-234 prohibiting any form of loan or insurance. Included in the suspension are mortgage loans guaranteed by the Veterans Administration, or insured by the Federal Housing Administration, or loans on farm buildings by the Farmer's Home Administration.

Finally, banks and savings and loan associations must notify purchasers of the suspension. Suspensions also can lead to litigation between the federal and local governments as in the case of *U.S.A. v. Parish of St. Ber-*

nard and U.S.A. v. Parish of Jefferson *et al.* for more than \$130 million.¹⁵ The two parish governments did not adequately maintain drainage basins, and damage was caused to property within and adjacent to the flood plain and surrounding areas in Louisiana. In July 1983, the federal court ruled that FEMA had the right to sue to recover funds paid out in federal flood insurance claims for flood damage resulting from the tortuous actions of local communities, developers, and other property owners. The court ruled further that the federal government may sue in contract for specific performance of flood plain management requirements of FEMA.¹⁶ In the future, more legal claims from government, citizens, and industry may become significant factors in financing emergencies and especially recovery.

Assessment Districts

Communities may establish a benefit assessment district to provide supplemental services to a particular area. This device can be used in mitigation, preparedness, and recovery aspects of emergency management (see Table 1). An example of benefit assessment district was used in the Los Angeles County Flood Control District.¹⁷ The system was developed because existing revenues were not adequate to keep the flood protection system, upon which the lives and property of district residents depend, in safe and effective condition. These assessment districts may be county service areas, such as the Los Angeles County Flood Control District, or a

community service district. Both are special districts with power to tax property and collect service charges, except the community service district has an independently elected board of directors. In the Los Angeles County Flood Control District the County Board of Supervisors determines the method of financing and rates. For local governments that are either unwilling or unable to provide specialized services to areas subject to disasters, special districts can serve to spread the costs and risk back to the taxpayer who benefits most from the services.

Table 1 illustrates how these above-mentioned funding alternatives relate to the different phases of emergency management: disaster mitigation, preparedness, response, and recovery. There are other options used by local governments but they are more specialized and appropriate for long-term recovery. For example, redevelopment agencies can be formed by local governments to acquire damaged property and sell it to a private developer to reconstruct an entire area. Redevelopment agencies are best suited for reconstruction of city business districts. Governments may use taxes along with service charges or fees in what is called tax increment financing to pay bonded debt for reconstructed public facilities. If governments are unable to pay the cost of reconstruction and do not want to form a redevelopment agency, they may join with private developers in a lease-purchase agreement. This, for example, may allow a private development on public land with some public use of the facility which will after a period of years return to total government ownership.

TABLE 1
Funding Alternatives for Phases of Emergency Management

Funding and Financing Alternatives for Local Governments	Mitigation (long-term) Reduce/Eliminate Disaster	Preparedness (to respond) When Mitigation Cannot Help	Response (to emergency)	Recovery (short- and long-term)
Budget Transfers (temporary loan)	X	X	X	X
Mutual Aid Agreements (state and local)			X	X short-term
Joint Powers Agreements (JPA/JPIA)			X	X
Tax Anticipation Notes (short-term loans)	X	X	X	X
Bonds (municipal, industrial development)	X			X
Insurance Funding and Programs (federal, state, and local)				X
Assessment District	X	X		X
Grant-in-Aid (block and categorical)	X	X		X
Property or Sales Tax Increases	X	X		X
Lease Purchase Agreements	X			X
Tax Increment Financing (redevelopment)	X			X
State or Federal Highway/Gas Tax Funds (depends on state)**	X**	X**		X

(Federal and state disaster aid covered under response and recovery)

Summary, Conclusions, and Recommendations

We have examined the sources of aid and financial devices that are available to local governments during disasters. Because of limited tax base and reserves, community governments' options of financing disasters is very restricted. While Salt Lake City used short-term borrowing to pay initial disaster response costs, federal funds were essential to restore the local governments' financial health. The federal government also has limited use of funds for relocation of citizens and public facilities in major disasters in communities such as Love Canal and Times Beach. It would be worthwhile for all communities to have a matrix on funding mechanisms connected to the phases of disaster. The matrix is particularly helpful in determining what sources and amounts of revenue would be available to a community to pay the costs of an emergency when no federal or state emergency is declared.

There is a lack of information on financing in emergency management and particularly on funding mechanisms that can prepare local government to pay for disasters when no federal or state aid is forthcoming. More research is needed to determine the ability of local governments to pay for non-federally declared disasters such as Portuguese Bend and Abalone Cove landslides in the city of Rancho Palos Verdes, California. It is essential that state and local governments understand how land-use policies relate to disaster costs. Also more information is needed as to how different communities come up with the remaining 25-percent portion of the Disaster Relief Act. While states may loan the 25 percent to communities, what methods will be used to pay back these funds? This is a policy consideration best made by elected officials and staffs before an emergency so contingency planning and funding need not be made during a crisis.

Notes

1. Glen Marcussen, "On the Front Lines in Coalinga," *Natural Hazards Observer* 8, No. 4 (March 1984), p. 6.
2. *Ibid.*
3. "Federal Disaster Aid Helped 60,000 Families," *Hazard Monthly*, February 1984, pp. 1, 12.
4. "Private Insurance Claims Total Almost \$1.9 Billion, AIA Says," *Emergency Preparedness News* 8, No. 2 (January 25, 1984), p. 10.
5. Interview with Joseph E. Russell, Federal Emergency Management Agency, Washington, D.C., April 12, 1984.
6. Examples of publications in this subject area include: J. D. Vinso, "Financial Implications of Natural Disasters: Some Preliminary Indications," *Mass Emergencies* 2, No. 4 (December 1977); Howard Kunreuther and J. Wilson, "Disaster Mitigation and Recovery Policies for Natural Hazards," Grant ENV 76-12370, National Science Foundation, University of Pennsylvania; Howard Kunreuther, *Recovery From Natural Disasters: Insurance or Federal Aid?* (Washington, D.C.: American Enterprise Institute, 1973); Howard Kunreuther, "Economic Analysis of Natural Hazards: An Ordered Choice Approach," in Gilbert White, ed., *Natural Hazards: Local, National, and Global* (New York: Oxford University Press), pp. 206-214; Howard Kunreuther, *Disaster Insurance Protection: Public Policy Lessons* (New York: John Wiley & Sons, 1978); Office of Technical Assistance, U.S. Department of Commerce, *An Inquiry into the Long-Term Economic Impact of Natural Disasters in the United States* (Boston: Harbridge House, 1974); and Douglas C. Dacy and Howard Kunreuther, *The Economics of Natural Disasters* (New York: The Free Press, 1969).
7. Verne Paule and Bob Vianowski, eds., "How Uncle Sam Can Help if Disaster Strikes Your City," *Western City*, September 1983, pp. 13, 14, 19, 27, 62.
8. For a comprehensive review of interstate compacts, see: Edward D. Feigenbaum, *Emergency Management: The Legislative Perspective* (Lexington, Ky.: The Council of State Governments, 1984). Also see "Regional Pact Will Coordinate Rescue Work in Event of Disaster," *The Washington Post*, December 21, 1983, p. D4.
9. *Horan v. City of Rancho Palos Verdes*, Los Angeles Superior Court Case C294752 (1984). The County of Los Angeles earlier paid a judgment of \$9.5 million in the case of *Albers v. County of Los Angeles* (State Court of Appeals, 1961) in the same general landslide area but did not take title to the land. The subsequent development of the land resulted in further lawsuits that are still pending as of this writing.
10. Interview with Lance R. Bateman, Finance Director, Salt Lake City, April 2, 1984.
11. James Morentz, "One City's Answer to Funding Hazard Mitigation," *Hazard Monthly* 1, No. 4 (September 1980), p. 5.
12. D. Anderson, W. J. Petak, and C. E. Widell, "Earthquake Insurance Practices," unpublished monograph, prepared for the Federal Insurance Administration, 1981, p. 40.
13. "Florida City (Tarpon Springs) Suspended from National Flood Insurance Program," *Hazard Monthly*, December 1983, p. 7. Also see H. Crane Miller, *Coastal Flood Hazard and the National Flood Insurance Program* (Washington, D.C.: Federal Emergency Management Agency, June 1977); and for an example of a flood prevention ordinance see *Model Flood Damage Prevention Ordinance* (Frankfort, Ky.: Kentucky Flood Control Advisory Commission, August 1983).
14. Suspension follows provisions of Section 202(a) of Public Law 93-234 prohibiting any form of loan or insurance to areas failing to meet the requirements of the National Flood Insurance Program.
15. *U.S.A. v. Parish of St. Bernard and U.S.A. v. Parish of Jefferson, et al.*, Louisiana 81-1808 Sec. H(4) and 81-1810, Sec. D(4) U.S. District Court (1981). Also Court of Appeals, 5th Circuit, No. 83-3557 and 84-3082.
16. John Scheibel, "FEMA Meets with Early Success in Suit to Recover Flood Insurance Payments," *National Wetlands Newsletter* 5, No. 4 (July-August 1983), pp. 13-14.
17. A. E. Bruington, "Benefit Assessment for Flood Control" (Los Angeles: County Flood Control District, July 26, 1979).