Federal Hazard Mitigation Activities in the Midwest
Focus: Property Acquisition and Structure Elevation
A Status Report

A Federal priority in the recovery from the midwestern flooding continues to be the facilitation of either the elevation of flood damaged structures or the public acquisition (for open space use) of flooded property and the relocation of affected homes or businesses to areas outside of identified flood hazard areas. This is being accomplished through coordination and application of available Federal programs, consistent with State priorities and in conjunction with State and local authorities.

FEMA estimates that a total of $24.7 million will be available to the nine affected States through its Hazard Mitigation Grant Program. These funds (which require a 50 percent non-Federal match) can be used independently or as part of a package comprised of additional programs. FEMA will expedite the processing of grant applications for these particular disasters. In addition to these Grant funds, $5 million is already available for acquisition of insured properties under section 1362 of the National Flood Insurance Act.

Community Development Block Grant (CDBG) funds from HUD can also be used to support this priority. States and some entitlement cities are receiving $200 million from HUD to support a broad range of community development activities related to repair, replacement, and restoration of flood-damaged facilities. This includes acquisition of real property. CDBG funds were allocated on a formula basis using housing and public facility damage estimates. States set priorities and distribute funds to smaller local governments, while entitlement cities receive funds directly and make decisions on what activities to pursue. HOME funds in the amount of $50 million have also been distributed to States and some larger cities. While States and cities make decisions on which projects to undertake, HOME program requirements restrict its use to rehabilitation, property elevation, and new housing construction.

These projects can be complex and expensive, and FEMA has been working closely with other Federal agencies to establish consistent and constructive policies and guidelines for their implementation. The State plays an important role in this effort. As grantee, the State is responsible for setting project priorities and distributing both FEMA HMGP and HUD CDBG and HOME funding. FEMA is working closely with all nine States and has asked each to appoint a State Hazard Mitigation Officer as a point of contact.

Because the funding that has been appropriated by Congress to agencies for recovery from this disaster is insufficient to make all the victims whole, we must ensure that these funds are spent in the most cost-effective manner to reduce the region's long-term vulnerability to similar floods. A number of principles have guided our approach to this effort:

OWNER/ OCCUPIED

1. All property owners will be treated fairly and, to the extent possible, will be offered comparable packages of benefits. Because the programs offering acquisition assistance differ this is not always possible. However, FEMA is coordinating closely with the other agencies involved to standardized policies and procedures where possible and ensure smooth implementation.

2. Each property owner and each community interested in acquisition may have a unique combination of circumstances related to financial capability. To the extent possible, holders of flood insurance policies should receive a more advantageous package of benefits than individuals who chose not to purchase the insurance.

3. Priority for grant assistance should be given to meeting the needs of low and moderate income persons lacking resources to reestablish themselves. Packages of assistance should be "layered," meaning that the first assistance offered should be SBA loans, supplemented by grants from FEMA, HUD, and other appropriate agencies as necessary. As always, duplication of benefits is to be avoided.

4. Priority should be given to projects where homeowners voluntarily elect to participate.

5. ~~Market value for all~~ structures acquired with federal funds can be based either on pre-flood or post-flood values, depending on the needs of the community or applicant.

6. Priority should be given to those properties subject to the most frequent flooding, i.e. a property in the 25 year floodplain would be acquired before one in the 100 year floodplain, ~~which should be acquired before one in the 500 year or larger floodplain~~. Consideration will be given to all flood damaged properties, even if they are outside of the 100 year floodplains identified through the National Flood Insurance Program (NFIP). While in many cases, the extent of flooding correlated fairly closely with the NFIP maps, a considerable number of properties outside of the 100 year floodplain may have been affected.

7. If possible, "checkerboard" patterns of acquisition will be avoided, in favor of projects wherein contiguous parcels can be acquired. This will facilitate more effective open space use of the acquired property. This is not to preclude the acquisition of properties that are not contiguous, however, if a particular situation warrants it. The mitigation of hazards is often an incremental process, taking advantage of particular opportunities as they develop.

8. Financing of levee repairs is being coordinated closely with relocation efforts to ensure that these two processes are not in conflict.

9. Federal loan forbearance, rather than loan forgiveness, should be applied as appropriate.

FEMA's goal is to ensure that 100 percent of the affected communities, and the individuals and businesses in them, are notified of the availability of programs that can assist in funding such projects, and how these programs may be used singly or in combination to effect a recovery that significantly reduces the likelihood of future flood losses. At this time, about 100 communities have expressed some level of interest. The number of potential properties in each ranges from two or three to close to 100. These numbers are continually being refined as FEMA continues the detailed, hands-on technical assistance to States and communities that such projects require.

The State-by-State information below will discuss specific actions that have been taken by FEMA to initiate discussions with communities on potential acquisition projects. If a community is interested, it should contact FEMA's Hazard Mitigation Officer at the Disaster Field Office to discuss needs and mitigation approaches. The Hazard Mitigation Officer will:

1. Arrange for the development of site-specific technical guidance for mitigation opportunities and identify sources of further technical assistance, such as universities, regional planning commissions, councils of government, etc.;

2. Advise on the range of Federal and State financial assistance to meet individual community needs, including acting as a broker among Federal and State agencies as needed to package available programs most effectively;

3. Arrange for advice from State and local officials who have managed successful relocation projects of their own, as needed; and

4. Help communities and individuals to implement the mitigation measures, monitor progress, and ensure completion of projects.

A synopsis of mitigation assistance activities on a State-by-State basis is provided below, and a list of Federal programs available to fund property acquisition projects follows the synopsis.

ILLINOIS

Community Outreach:

- FEMA has contracted with the University of Illinois to provide on-site evaluations and technical assistance to communities with severe, recurrent flooding. The University's involvement is comprised of the following steps: 1) collect data on individual structures; 2) analyze and organize that data; 3) identify mitigation opportunities; and, 4) develop individual community plans that outline the necessary steps for recovery.

- The Village of Valmeyer has developed long term recovery plans. FEMA is providing technical assistance to the community on how to submit applications for funding.

- A meeting was held with the Town of Grafton on September 28, 1993, to discuss the completed University of Illinois recovery report. The Town must decide on the mitigation measures it wishes to pursue. The Regional Planning Commission and FEMA staff are working together with the Town to determine the best strategy for recovery.

- Personnel from the Tennessee Valley Authority (TVA) are working out of the Illinois Disaster Field Office lending technical assistance to local communities.

- The Interagency Hazard Mitigation Team met in late August to identify State priorities and potential mitigation projects, including acquisition and relocation.

Potential for Acquisition and Relocation:

- FEMA is working with six communities on relocation, acquisition, and elevation projects: Grafton, Hull, Keithsburg, Kampsville, Hardin, and Quincy.

- Recovery plans will address the alternatives available for each community. Regional planning commissions have also adapted this approach to coordinate available mitigation resources.

- An additional 14 communities are also interested in relocation programs and will be assisted by the University of Illinois teams.

- Field staff estimate that up to 106 more communities, with populations under 1,000, may ultimately be interested in relocation or acquisition programs. Town meetings to explain acquisition and relocation were held for 100% of the communities affected.

IOWA

Community Outreach:

- FEMA has identified a list of homeowners whose property damage indicates a potential interest/need in either elevation or property acquisition. FEMA and the State are using this information as a basis for community and individual outreach efforts.

- FEMA contracted with Iowa State University to develop long-term mitigation strategies for seven seriously flood-prone communities. The University will deliver strategies to FEMA on all seven areas by mid-December. The strategies are expected to lead to applications for grants from FEMA and other agencies.

- FEMA and SBA are operating a Mitigation Packaging Center which is offering individual counseling on mitigation alternatives and available funding.

- The Interagency Hazard Mitigation Team met in late September and conducted site visits to identify alternatives to levee repairs in hard-hit areas.

Potential for Acquisition and Relocation:

- Fifteen counties have indicated interest in acquisition or elevation programs. This would involve 19 separate projects in various communities, including Des Moines, Hamburg, Chelsea, Ames, Ottumwa, Eddyville, and Tama.

- FEMA is holding a seminar to educate State and local agency staffs on acquisition and relocation procedures.

- The Department of Economic Development has developed a proposal to fund acquisition and elevation through regional councils of government. The Department is already providing technical assistance to the councils on a continuing basis.

Substantial Damage and Elevating Structures:

- FEMA has approved a $300,000 Hazard Mitigation Grant to the Neighborhood Housing Services of Des Moines, Inc. for the purpose of elevating substantially damaged houses in Des Moines.

- FEMA has given preliminary approval to a similar grant for the State of Iowa Emergency Management Division to offer elevation assistance in other areas of the State. A conservative estimate is 400 structures across the State.

KANSAS

Community Outreach:

- The Interagency Hazard Mitigation Team has completed its initial findings and recommendations. These will provide a basis for the State's mitigation strategy.

- FEMA and State staff are attending town meetings throughout the State to inform communities about mitigation alternatives and available funding.

Potential for Acquisition and Relocation:

- FEMA and the State have identified ten counties interested in property acquisition assistance. Approximately 130 properties are involved. Interested communities include Manhattan, Easton, Marysville, and parts of Kansas City.

- The Wolcott area (western Wyandotte County) of Kansas City is preparing an application for Hazard Mitigation funds to acquire 41 houses. These are low-income families whose homes were under water for eight weeks. The application is expected to be submitted to the State by the first week in October.

- Also under consideration for acquisition is the A-1 Mobile Home Park in Kansas City, containing 262 mobile homes in the 100-year floodplain. Some specific issues are being worked out prior to the submission of an application for Hazard Mitigation funding.

- Funding for acquisition projects will primarily come from FEMA's Hazard Mitigation Grant Program, with matching funds coming from HUD Community Development Block Grants.

Substantial Damage and Elevating Structures:

- The Kansas Donation Group has been successful in obtaining donations of building materials and services which may be applied to structures required to elevate.

MINNESOTA

Community Outreach:

- The State and FEMA have developed a strategy to work together with the regional planning commissions on all long-range recovery issues, including community outreach, project development, and identification of funding sources.

Potential for Acquisition and Relocation:

- Six communities are interested in acquiring a total of about 60 structures for a total cost of $4 million. FEMA estimates approximately $1 million in Hazard Mitigation Grant funds will be available.

- One community, Springfield, has submitted a proposal to acquire 13 properties for an estimated total of $750,000. About $50,000 in Hazard Mitigation funds will be requested, with CDBG and HOME funds to help make up the remainder needed. FEMA Individual Assistance will provide up to $1500 to each family for relocation (not acquisition) expenses, and Temporary Housing will be provided.

MISSOURI

Community Outreach:

- FEMA and the State have been holding nightly meetings with most of the affected communities regarding the mitigation alternatives available and potential funding sources.

- Representatives from the Missouri State Emergency Management Agency, Department of Economic Development, and Housing Development Commission; and FEMA, HUD, and SBA conducted workshops throughout the State to discuss programs available to acquire flood-damaged properties and elevate homes.

- FEMA is contracting with the regional planning commissions to provide technical assistance to communities in evaluating alternatives and preparing program applications. Training for the commissions was held September 16.

- The State Emergency Management Agency sent application packages for the FEMA Hazard Mitigation Grant Program to all counties and cities in the declared disaster area. State and Federal agencies will meet October 19 to determine the criteria for funding Hazard Mitigation Grants. The State has set November 1, 1993 as the deadline for applications to be submitted.

- The Interagency Hazard Mitigation Team met September 14 to discuss issues and priorities and make recommendations for the implementation of mitigation measures. The Team will be a primary reviewer of Hazard Mitigation Grant Program project applications.

Potential for Acquisition and Relocation:

- Twenty-five communities have indicated interest in acquisition or relocation projects. Each would involve between 25 and 100 homes. Interested communities include the Counties of Jefferson, St. Charles, St. Louis, Cape Girardeau, Lincoln, Perry, Platte, and Warren; and the cities of Arnold, Cape Girardeau, Hannibal, Jefferson City, Ste. Genevieve, Bellefontaine Neighbors, Chesterfield, Commerce, Fenton, Festus, Crystal City, Hermann, Marthasville, Portage De Sioux, Riverside, Annada, and Washinton.

Substantial Damage and Elevating Structures:

- Representatives from the National Flood Insurance Program have been participating in workshops throughout the State on elevating flood-damaged homes.

NEBRASKA

Community Outreach:

- FEMA and the State are contacting all affected communities and explaining available programs and alternatives, and are providing direct assistance to communities who are further interested in developing proposals and preparing grant applications.

- The Governor of Nebraska issued a letter transmitting the list of "Federal Programs for Relocation and Elevation of Flood Damaged Property" to all Mayors and County Commission Chairs in the affected areas.

Potential for Acquisition and Relocation:

- FEMA Hazard Mitigation staff and a representative from HUD have been meeting with Sarpy County (south of Omaha) and the Papio-Missouri River Natural Resources District to discuss potential acquisition projects in Iskey Park, Hollubs Place, and Elbow Bend areas of the County. The County is currently preparing a Hazard Mitigation Grant application for the project. While the exact total number of properties is still being identified (between 50 and 100), the estimated cost of the project is $1.2 million.

- The Crowell area of Dodge County is also considering the option of acquisition for five properties that flood several times a year.

NORTH DAKOTA

Community Outreach:

- A joint team of Federal and State mitigation staff presented Hazard Mitigation Grant Program applicant briefings in Valley City, Devils Lake and Bismarck. Over 100 potential applicants attended the briefings, indicating a high interest level and the importance of packaging programs to fund as many projects as possible.

- Several State agencies are developing and implementing a recovery strategy to identify needs prior to the winter freeze.

- The State and FEMA are providing acquisition and reconstruction information and on-site technical assistance to interested individuals.

- The State is initiating a public awareness, information, and outreach program regarding flood preparedness, response, recovery, and mitigation responsibilities of governments and individuals.

- The Interagency Hazard Mitigation Team met in August and is making recommendations for Statewide mitigation activities.

Potential for Acquisition and Relocation:

- One community, Valley City, has expressed interest in a Hazard Mitigation Grant for property acquisition. CDBG funds may also be available to fund any other potential relocation projects identified.

Substantial Damage and Elevating Structures:

- Substantial damage does not appear to be an issue in North Dakota since the flooding was mostly limited to basements.

SOUTH DAKOTA

Community Outreach:

- FEMA is working closely with State and other agencies to identify communities interested in acquisition or relocation projects.

- All Disaster Application Center had mitigation experts in place to counsel disaster victims and to identify opportunities to reduce future losses.

Potential for Acquisition and Relocation:

- Two communities are interested in acquisition or relocation projects; five homes in Madison and ten homes in Montrose. Hazard Mitigation and CDBG funds will probably be sufficient to handle relocation needs.

- A contractor has provided on-site support to two communities (i.e., Montrose and McCook Counties) and assisted in developing plans and grant applications. High water marks have been recorded, base flood elevations determined, the floodplain mapped, flood-damaged properties inspected to identify mitigation options, information provided to property owners, and coordination facilitated between State, Regional, County, and local officials.

- Reconstruction and acquisition information is being provided to interested individuals.

- The community of Montrose is annexing additional land so that citizens can relocate out of the floodplain. The town has applied for $400,000 in CDBG funds for the project. The groundbreaking for the first new home to be built out of the floodplain will take place the first week of October.

Substantial Damage and Elevating Structures:

- It is anticipated that some property owners will choose to elevate their homes rather than relocate. FEMA Hazard Mitigation Grants are a potential source of funding for interested communities.

WISCONSIN

Community Outreach:

- Involved agencies are meeting periodically to discuss the most beneficial use of potential funding sources. Federal agencies include EDA, FmHA, SBA, USACE, SCS, HUD, and FEMA. State agencies include the Departments of Development, Natural Resources, Industry, Labor and Human Relations, Health and Social Services, and the Wisconsin Trust Fund. At the local level, regional planning commissions, municipal and county government officials are involved.

Potential for Acquisition and Relocation:

- Four communities have expressed interest in acquiring a total of approximately 142 structures. The total cost is estimated at about $10 million.

- One of these communities, the City of Darlington, has developed a property acquisition plan with funding from a previous FEMA planning grant, and is preparing an application for a Hazard Mitigation Grant for the project.

Substantial Damage and Elevating Structures:

- Only a few communities have identified substantially damaged structures. One of the hardest hit, Darlington, is planning to acquire the substantially damaged structures.

Federal Programs For Relocation And Elevation

FEMA Programs:

• The **Hazard Mitigation Grant Program (HMGP)** is authorized by Section 404 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act 93-288, as amended. HMGP can provide 50% of the cost of elevating structures to comply with NFIP standards, and/or for acquiring properties in a floodplain, providing relocation assistance as necessary. Communities can apply through the State for the HMGP following a Presidential disaster declaration. The State, as HMGP grantee, is responsible for identifying and prioritizing projects. Although State and local units of governments are the eligible applicants, funds can be provided to individuals and businesses for these projects.

• Through **Section 1362 of the National Flood Insurance Program**, FEMA can purchase flood-damaged property and provide property owners the opportunity to relocate in areas not prone to flooding. To be eligible the property owner must have a flood insurance policy in force when the damage occurs and meet one of three other program criteria. In addition, the community must agree to accept title to the purchased property and manage it for open space purposes. Currently, the 1362 program is expecting to have a budget of $5 million for FY 1994 for all 50 States. Because funding is limited, this program expects a shortfall in relation to eligible properties in the Midwest.

• Several **Individual Assistance** programs can also be used to facilitate elevation or relocation out of a floodplain. The **Individual and Family Grant (IFG)** program can be used in conjunction with other programs to elevate or relocate individual structures, although funding is limited. The maximum grant is ~~$11,900~~ $12,200. In addition, **Disaster Housing** assistance can be provided to individuals for up to 18 months while relocation and elevation programs are being developed and implemented. Program regulations for use of the special **Cora Brown Fund** specifically refer to relocation out of hazardous areas, and to hazard mitigation and floodplain management purposes.

• FEMA's **Public Assistance** program can provide some limited assistance in the areas of elevation and relocation. For example, if entire portions of a community were to be relocated outside of the floodplain, PA can assist in rebuilding the necessary infrastructure in the new location. If a community determines that a badly damaged facility is not to be repaired, the estimated damage amount may be used to fund hazard mitigation measures.

HUD Programs:

- The **Community Development Block Grant (CDBG)** program can provide funds for a variety of projects, including floodplain property acquisition and relocation, or elevation. The Supplemental Appropriation Bill provided an additional $200 million for the CDBG Program, however funds are restricted to "repairing, replacing, or restoring the function of facilities damaged by or continuing services interrupted by the flood". These funds can be used for elevation of structures, or in combination acquisition/relocation projects.

- The **HOME Program** provides grants to States and larger cities and urban counties for permanent housing for low-income persons. Allocations to communities will be based on the CDBG formula. Individuals may apply for these funds if they are low income (80% of median income). There is no minimum or maximum loan amount and interest rates are determined by the recipient community. The community may decide to grant funds to individuals rather than provide loans. Funds can be used for acquisition, new construction, or elevation. $50 million was added to this program in the Supplemental Appropriations Bill. Application requirements and housing quality standards requirements have been waived and other processes streamlined.

SBA Programs:

- SBA provides **disaster loans** to homeowners and businesses to repair or replace property damaged in a declared disaster. Loans may be increased to cover extra costs to meet required building codes, such as the NFIP requirements. SBA may also provide loans for involuntary relocations out of special flood hazard areas, when required by local officials. Involuntary relocations also cover any move out of a special flood hazard area when the damage to the real property is substantial as defined by NFIP. In cases of involuntary relocations the entire replacement value is eligible. While SBA's legislation limits the agency's authority to make disaster loans for voluntary relocations, there are exceptions that can be made including relocations of homeowners, renters and business-owners out of special flood hazard areas. These loans would be limited to the amount necessary to repair or replace the damage at the disaster site. Loans are available for up to $120,000 for homeowners; $20,000 for renters; and, $1,500,000 for businesses. SBA loans may also be used to refinance existing mortgages in some instances.

Farmers Home Administration Programs:

- FmHA is authorized to make rural housing loans and grants to eligible applicants to buy, build, or repair housing located in a rural areas. Homes constructed or repaired through FmHA are required to meet the NFIP elevation requirements. The **Section 502 Home Ownership Loan Program**, available to low and very low income applicants (50% and 80% respectively of the area's median income, can be used to elevate or relocate individual structures; the estimated annual budget for this program is $1.29 billion. The maximum loan amount is $105,000, and interest rates, based on income, may be as low as 1%.

• FmHA's **Section 504 Home Improvement Loans and Repair Loans and Grants Program** can provide funds to elevate homes or farm structures; $15 million was added to the loan program and $15 million was added to the grant program in the supplemental appropriation. The grant portion of this program (up to $5,000) is made only to very low income senior citizens. The loan program may provide loans up to $15,000, with the lowest interest rate, based on income, at 1%.

• FmHA **Emergency Loans** are available to assist family sized farmers and ranchers in refinancing existing debt, as well as to cleanup and restore farms and repair farm structures. Loans can be used to elevate living areas to meet NFIP requirements or to relocate homes out of the floodplain. Loans are provided at 4.5% interest over a 30-40 year period for physical losses. The supplemental appropriation added $87 million to the loan program.

USACE Programs:

• The USACE is authorized to relocate homes out of the floodplain if it proves to be more cost effective than a structural flood control measure. However, this can be a lengthy process and requires congressional review; the **Section 205 Program**, for projects under $5 million, can take several years to complete, while projects over this amount, funded under the regular program, would take much longer.

Economic Development Administration Programs:

• The EDA provides funding for projects resulting in **economic growth** for communities. The Administration has received additional funding through the supplemental appropriation for its programs in the affected communities in the Midwest.

FEMA

Editor's Tip Sheet

FEMA Fax NewsExpress

Office of Emergency Information and Public Affairs (202) 646-4600
Morrie Goodman, Director

Editor:The following is a summary of significant news and feature ideas about FEMA. It's designed to help you develop stories which these items may suggest.

Week of April 25, 1994

Federal Insurance Administrator Sworn In ...

Elaine McReynolds officially took over this week as head of FEMA's Federal Insurance Administration (FIA). The 46-year-old former Tennessee State Insurance Commissioner was nominated to the position by President Clinton and confirmed by the U.S. Senate. Picture and biography available. Interviews can be arranged.
(Contact: Dave Martin 202/646-3159)

* * *

Fire Administrator Nominee Testifies Before Senate Subcommittee ...

Carrye Burley Brown, President Clinton's nominee to head the U.S. Fire Administration, told a Senate committee this week that making Americans fire safe is her number-one priority and helping FEMA Director James Lee Witt fulfill FEMA's mission as an organization of "people helping people" her number-one imperative. Brown testified at her confirmation hearing before the Senate Commerce Subcommittee. The chairman, Sen. Richard Bryan (D-Nev.), noted that Brown's support covers the entire range of the Nation's fire service.
(Contact: Dave Martin 202/636-3159)

* * *

Three New FEMA Regional Directors Named ...

* **Shirley Mattingly**,City of Los Angeles emergency management director for the last 20 years, has been appointed Director of FEMA Region IX (Arizona, California, Hawaii and Nevada, Commonwealth of the Northern Mariana Islands, Federated States of Micronesia, Republic of Marshall Islands and Republic of Palau), headquartered in San Francisco.

--more--

* **Kenneth D. Hutchison** of Naples, Fla., is the new Director of FEMA's Southeast Region IV (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina and Tennessee), based in Atlanta. A veteran of more than 75 Presidentially-declared disasters, he has been an emergency planning consultant to state and local governments.

* **Louis A. Elisa**, long-time New England government administrator, has been named Director of FEMA's Northeast Region I (Connecticut, Massachusetts, Maine, New Hampshire, Rhode Island and Vermont), located in Boston. He has held a variety of key positions in the Massachusetts Executive Office of Environmental Affairs.

(Contact: Carl Suchocki 202/646-3988)

* * *

FEMA Outlines Fiscal '95 Budget Needs for Congress ...

Director James Lee Witt and other FEMA officials have outlined the Agency's Fiscal 1995 budget request for Sen. Barbara Mikulski's (D-Md.) Senate Appropriations Subcommittee. The Administration is asking for $704.5 million for FEMA, slightly lower than last year's appropriation. The Director's testimony and the budget-in-brief are available.

(Contact: Dave Martin 202/646-3159)

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Status of Disaster Declarations ...

So far this month President Clinton has declared parts of four states disaster areas due to a variety of storm conditions. Latest were counties in **Oklahoma and Missouri**, both declared Thursday, April 21.

Earlier, parts of Delaware, Maryland, Kentucky, Pennsylvania and Virginia were declared major disaster sites all as a result of intense winter storms. Other declarations were issued in late March for Alabama and Georgia because of tornado and flood damage.

(Contact: Carl Suchocki 202/646-3966)

* * *

Upcoming Events ...

* Director Witt will be traveling in Florida this week.

* More actions can be anticipated in FEMA's mitigation efforts in the nine Midwestern states flooded last summer.

(Contact: Dave Martin 202/646-3159)

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Federal Emergency Management Agency

Washington, D.C. 20472

STATE AND LOCAL PROGRAMS AND SUPPORT DIRECTORATE

Telecopier Transmittal Header

Telecopy Number: (202) 646-4060 Verification Number: (202) 646-3692

September 30, 1993

TO: Kathi Way
Special Assistant to the President
The White House
Fax: 456-7028

FROM: James L. Witt
Director
Federal Emergency Management Agency

James L. Witt

Remarks:

Attached is the memorandum on Acquisition of Properties Affected by the Midwest Floods which is being circulated to the other involved Federal agencies for comment. Comments are due by Monday, October 4th. I should be able to forward the memorandum to the President through you by Wednesday, October 6th.

DRAFT
NOT FOR
CIRCULATION

Federal Emergency Management Agency

Washington, D.C. 20472

SEP 30 1993

MEMORANDUM FOR: Kathi Way
Special Assistant to the President

FROM: James L. Witt
Director

SUBJECT: Acquisition of Properties Affected by the Midwest Floods

A priority for FEMA in the recovery from the midwestern flooding continues to be the use of our own and other available Federal programs, consistent with State priorities and in conjunction with their authorities, to facilitate either the elevation of flood damaged structures in identified flood hazard areas or the public acquisition (for open space use) of flooded property and the relocation of affected homes or businesses to areas outside of flood hazard areas.

FEMA estimates that a total of $27.5 million will be available to the nine affected States through its Hazard Mitigation Grant Program. These funds (which require a 50 percent non-Federal match) can be used independently or as part of a package comprised of additional programs. FEMA will expedite the processing of grant applications for these particular disasters. In addition to these Grant funds, $5 million is already available for acquisition of insured properties under section 1362 of the National Flood Insurance Act, $200 million is available in the Department of Housing and Urban Development (HUD) Community Development Block Grant (CDBG) program, and $50 million is available in HUD HOME funds. The CDBG and HUD HOME funds can be used by States and local governments for acquiring property in the floodplain.

These projects can be complex and expensive, and FEMA has been working closely with other Federal agencies to establish consistent and constructive policies and guidelines for their implementation. Because the funding that has been appropriated by Congress to agencies for recovery from this disaster is insufficient to make all the victims whole, we must assure that these funds are spent in the most cost-effective manner to reduce the region's long-term vulnerability to similar floods.

A number of principles have guided our approach to this effort:

1. Consideration will be given to flood damaged properties, even if they are outside of the 100 year floodplains identified through the National Flood Insurance Program (NFIP). While in many cases, the extent of flooding correlated fairly closely with the NFIP maps, a considerable number of properties outside of the 100 year floodplain may have been affected. Priority should still be given to those properties subject to the most frequent

flooding, i.e. a property in the 25 year floodplain would be acquired before one in the 100 year floodplain, which should be acquired before one in the 500 year or larger floodplain.

2. If possible, "checkerboard" patterns of acquisition will be avoided, in favor of projects wherein contiguous parcels can be acquired. This will facilitate more effective open space use of the acquired property. This is not to preclude the acquisition of properties that are not contiguous, however, if a particular situation warrants it. The mitigation of hazards is often an incremental process, taking advantage of particular opportunities as they develop.

3. Financing of levee repairs is being coordinated closely with relocation efforts to ensure that these two processes are not in conflict.

4. Federal loan forbearance, rather than loan forgiveness, should be applied as appropriate.

5. All property owners will be treated fairly and, to the extent possible, will be offered comparable packages of benefits. Because the programs offering acquisition assistance differ this is not always possible. However, FEMA is coordinating closely with the other agencies involved to standardized policies and procedures where possible and ensure smooth implementation.

6. Recognizing that each property owner and each community interested in acquisition may have a unique combination of circumstances related to financial capability, to the extent possible, holders of flood insurance policies should receive a more advantageous package of benefits than individuals who chose not to purchase the insurance.

7. Packages of assistance should be "layered," meaning that the first assistance offered should be SBA loans, supplemented by grants from FEMA, HUD, and other appropriate agencies as necessary. As always, duplication of benefits is to be avoided.

8. Priority should be given to projects where homeowners voluntarily elect to participate.

I have established the goal of having 100 percent of the communities, and the individuals in those communities, that are potential candidates for property acquisition, notified of the availability of programs that can assist in funding such projects (list attached), and how these programs may be used singly or in combination to effect a recovery that significantly reduces the likelihood of future flood losses. At this time, about 100 communities have expressed some level of interest. The number of potential properties in each ranges from two or three to close to 100. These numbers are continually being refined as FEMA continues the detailed, hands-on technical assistance to States and communities that such projects require.

The State-by-State information below will discuss specific actions that have been taken by FEMA to initiate discussions with communities on potential acquisition projects. If a community is interested, it should contact FEMA's Hazard Mitigation (HM) Officer at the Disaster Field Office to discuss needs and mitigation approaches. The HM Officer will:

1. Arrange for the development of site-specific technical guidance for mitigation opportunities and identify sources of further technical assistance, such as universities, regional planning commissions, councils of government, etc.;

2. Advise on the range of Federal and State financial assistance to meet individual community needs, including acting as a broker among Federal and State agencies as needed to package available programs most effectively;

3. Arrange for advice from State and local officials who have managed successful relocation projects of their own, as needed; and

4. Help communities and individuals to implement the mitigation measures, monitor progress, and ensure completion of projects.

A synopsis of mitigation assistance activities on a State-by-State basis is provided below, and a list of Federal programs available to fund property acquisition projects follows the synopsis.

I would be pleased to discuss the efforts of FEMA, and our coordination with the other Federal agencies involved in the midwest flood recovery effort, with you. Please contact me with any questions regarding the information provided in this document.

ILLINOIS

Community Outreach:

- FEMA has contracted with the University of Illinois to provide on-site evaluations and technical assistance to communities with severe, recurrent flooding. The University's involvement is comprised of the following steps: 1) collect data on individual structures; 2) analyze and organize that data; 3) identify mitigation opportunities; and, 4) develop individual community plans that outline the necessary steps for recovery.

- The Village of Valmeyer has developed long term recovery plans. FEMA is providing technical assistance to the community on how to submit applications for funding.

- A meeting was held with the Town of Grafton on September 28, 1993, to discuss the completed University of Illinois recovery report. The Town must decide on the mitigation measures it wishes to pursue. The Regional Planning Commission and FEMA staff are working together with the Town to determine the best strategy for recovery.

- Personnel from the Tennessee Valley Authority (TVA) are working out of the Illinois Disaster Field Office lending technical assistance to local communities.

- The Interagency Hazard Mitigation Team met in late August to identify State priorities and potential mitigation projects, including acquisition and relocation.

Potential for Acquisition and Relocation:

- FEMA is working with six communities on relocation, acquisition, and elevation projects: Grafton, Hull, Keithsburg, Kampsville, Hardin, and Quincy.

- Recovery plans will address the alternatives available for each community. Regional planning commissions have also adapted this approach to coordinate available mitigation resources.

- An additional 14 communities are also interested in relocation programs and will be assisted by the University of Illinois teams.

- Field staff estimate that up to 106 more communities, with populations under 1,000, may ultimately be interested in relocation or acquisition programs. Town meetings to explain acquisition and relocation were held for 100% of the communities affected.

IOWA

Community Outreach:

- FEMA has identified a list of homeowners whose property damage indicates a potential interest/need in either elevation or property acquisition. FEMA and the State are using this information as a basis for community and individual outreach efforts.

- FEMA contracted with Iowa State University to develop long-term mitigation strategies for seven seriously flood-prone communities. The University will deliver strategies to FEMA on all seven areas by mid-December. The strategies are expected to lead to applications for grants from FEMA and other agencies.

- FEMA and SBA are operating a Mitigation Packaging Center which is offering individual counseling on mitigation alternatives and available funding.

- The Interagency Hazard Mitigation Team met in late September and conducted site visits to identify alternatives to levee repairs in hard-hit areas.

Potential for Acquisition and Relocation:

- Fifteen counties have indicated interest in acquisition or elevation programs. This would involve 19 separate projects in various communities, including Des Moines, Hamburg, Chelsea, Ames, Ottumwa, Eddyville, and Tama.

- FEMA is holding a seminar to educate State and local agency staffs on acquisition and relocation procedures.

- The Department of Economic Development has developed a proposal to fund acquisition and elevation through regional councils of government. The Department is already providing technical assistance to the councils on a continuing basis.

Substantial Damage and Elevating Structures:

- FEMA has approved a $300,000 Hazard Mitigation Grant to the Neighborhood Housing Services of Des Moines, Inc. for the purpose of elevating substantially damaged houses in Des Moines.

- FEMA has given preliminary approval to a similar grant for the State of Iowa Emergency Management Division to offer elevation assistance in other areas of the State. A conservative estimate is 400 structures across the State.

KANSAS

Community Outreach:

- The Interagency Hazard Mitigation Team has completed its initial findings and recommendations. These will provide a basis for the State's mitigation strategy.

- FEMA and State staff are attending town meetings throughout the State to inform communities about mitigation alternatives and available funding.

Potential for Acquisition and Relocation:

- FEMA and the State have identified ten counties interested in property acquisition assistance. Approximately 130 properties are involved. Interested communities include Manhattan, Easton, Marysville, and parts of Kansas City.

- The Wolcott area (western Wyandotte County) of Kansas City is preparing an application for Hazard Mitigation funds to acquire 41 houses. These are low-income families whose homes were under water for eight weeks. The application is expected to be submitted to the State by the first week in October.

- Also under consideration for acquisition is the A-1 Mobile Home Park in Kansas City, containing 262 mobile homes in the 100-year floodplain. Some specific issues are being worked out prior to the submission of an application for Hazard Mitigation funding.

- Funding for acquisition projects will primarily come from FEMA's Hazard Mitigation Grant Program, with matching funds coming from HUD Community Development Block Grants.

Substantial Damage and Elevating Structures:

- The Kansas Donation Group has been successful in obtaining donations of building materials and services which may be applied to structures required to elevate.

MINNESOTA

Community Outreach:

- The State and FEMA have developed a strategy to work together with the regional planning commissions on all long-range recovery issues, including community outreach, project development, and identification of funding sources.

Potential for Acquisition and Relocation:

- Six communities are interested in acquiring a total of about 60 structures for a total cost of $4 million. FEMA estimates approximately $1 million in Hazard Mitigation Grant funds will be available.

- One community, Springfield, has submitted a proposal to acquire 13 properties for an estimated total of $750,000. About $50,000 in Hazard Mitigation funds will be requested, with CDBG and HOME funds to help make up the remainder needed. FEMA Individual Assistance will provide up to $1500 to each family for relocation (not acquisition) expenses, and Temporary Housing will be provided.

MISSOURI

Community Outreach:

- FEMA and the State have been holding nightly meetings with most of the affected communities regarding the mitigation alternatives available and potential funding sources.

- Representatives from the Missouri State Emergency Management Agency, Department of Economic Development, and Housing Development Commission; and FEMA, HUD, and SBA conducted workshops throughout the State to discuss programs available to acquire flood-damaged properties and elevate homes.

- FEMA is contracting with the regional planning commissions to provide technical assistance to communities in evaluating alternatives and preparing program applications. Training for the commissions was held September 16.

- The State Emergency Management Agency sent application packages for the FEMA Hazard Mitigation Grant Program to all counties and cities in the declared disaster area. State and Federal agencies will meet October 19 to determine the criteria for funding Hazard Mitigation Grants. The State has set November 1, 1993 as the deadline for applications to be submitted.

- The Interagency Hazard Mitigation Team met September 14 to discuss issues and priorities and make recommendations for the implementation of mitigation measures. The Team will be a primary reviewer of Hazard Mitigation Grant Program project applications.

Potential for Acquisition and Relocation:

- Twenty-five communities have indicated interest in acquisition or relocation projects. Each would involve between 25 and 100 homes. Interested communities include the Counties of Jefferson, St. Charles, St. Louis, Cape Girardeau, Lincoln, Perry, Platte, and Warren; and the cities of Arnold, Cape Girardeau, Hannibal, Jefferson City, Ste. Genevieve, Bellefontaine Neighbors, Chesterfield, Commerce, Fenton, Festus, Crystal City, Hermann, Marthasville, Portage De Sioux, Riverside, Annada, and Washinton.

Substantial Damage and Elevating Structures:

- Representatives from the National Flood Insurance Program have been participating in workshops throughout the State on elevating flood-damaged homes.

NEBRASKA

Community Outreach:

- FEMA and the State are contacting all affected communities and explaining available programs and alternatives, and are providing direct assistance to communities who are further interested in developing proposals and preparing grant applications.

- The Governor of Nebraska issued a letter transmitting the list of "Federal Programs for Relocation and Elevation of Flood Damaged Property" to all Mayors and County Commission Chairs in the affected areas.

Potential for Acquisition and Relocation:

- FEMA Hazard Mitigation staff and a representative from HUD have been meeting with Sarpy County (south of Omaha) and the Papio-Missouri River Natural Resources District to discuss potential acquisition projects in Iskey Park, Hollubs Place, and Elbow Bend areas of the County. The County is currently preparing a Hazard Mitigation Grant application for the project. While the exact total number of properties is still being identified (between 50 and 100), the estimated cost of the project is $1.2 million.

- The Crowell area of Dodge County is also considering the option of acquisition for five properties that flood several times a year.

NORTH DAKOTA

Community Outreach:

- A joint team of Federal and State mitigation staff presented Hazard Mitigation Grant Program applicant briefings in Valley City, Devils Lake and Bismarck. Over 100 potential applicants attended the briefings, indicating a high interest level and the importance of packaging programs to fund as many projects as possible.

- Several State agencies are developing and implementing a recovery strategy to identify needs prior to the winter freeze.

- The State and FEMA are providing acquisition and reconstruction information and on-site technical assistance to interested individuals.

- The State is initiating a public awareness, information, and outreach program regarding flood preparedness, response, recovery, and mitigation responsibilities of governments and individuals.

- The Interagency Hazard Mitigation Team met in August and is making recommendations for Statewide mitigation activities.

Potential for Acquisition and Relocation:

- One community, Valley City, has expressed interest in a Hazard Mitigation Grant for property acquisition. CDBG funds may also be available to fund any other potential relocation projects identified.

Substantial Damage and Elevating Structures:

- Substantial damage does not appear to be an issue in North Dakota since the flooding was mostly limited to basements.

SOUTH DAKOTA

Community Outreach:

- FEMA is working closely with State and other agencies to identify communities interested in acquisition or relocation projects.

- All Disaster Application Center had mitigation experts in place to counsel disaster victims and to identify opportunities to reduce future losses.

Potential for Acquisition and Relocation:

- Two communities are interested in acquisition or relocation projects; five homes in Madison and ten homes in Montrose. Hazard Mitigation and CDBG funds will probably be sufficient to handle relocation needs.

- A contractor has provided on-site support to two communities (i.e., Montrose and McCook Counties) and assisted in developing plans and grant applications. High water marks have been recorded, base flood elevations determined, the floodplain mapped, flood-damaged properties inspected to identify mitigation options, information provided to property owners, and coordination facilitated between State, Regional, County, and local officials.

- Reconstruction and acquisition information is being provided to interested individuals.

- The community of Montrose is annexing additional land so that citizens can relocate out of the floodplain. The town has applied for $400,000 in CDBG funds for the project. The groundbreaking for the first new home to be built out of the floodplain will take place the first week of October.

Substantial Damage and Elevating Structures:

- It is anticipated that some property owners will choose to elevate their homes rather than relocate. FEMA Hazard Mitigation Grants are a potential source of funding for interested communities.

WISCONSIN

Community Outreach:

- Involved agencies are meeting periodically to discuss the most beneficial use of potential funding sources. Federal agencies include EDA, FmHA, SBA, USACE, SCS, HUD, and FEMA. State agencies include the Departments of Development, Natural Resources, Industry, Labor and Human Relations, Health and Social Services, and the Wisconsin Trust Fund. At the local level, regional planning commissions, municipal and county government officials are involved.

Potential for Acquisition and Relocation:

- Four communities have expressed interest in acquiring a total of approximately 142 structures. The total cost is estimated at about $10 million.

- One of these communities, the City of Darlington, has developed a property acquisition plan with funding from a previous FEMA planning grant, and is preparing an application for a Hazard Mitigation Grant for the project.

Substantial Damage and Elevating Structures:

- Only a few communities have identified substantially damaged structures. One of the hardest hit, Darlington, is planning to acquire the substantially damaged structures.

Federal Programs For Relocation And Elevation

FEMA Programs:

- The **Hazard Mitigation Grant Program (HMGP)** is authorized by Section 404 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act 93-288, as amended. HMGP can provide 50% of the cost of elevating structures in compliance with NFIP standards, and/or for acquiring properties in a floodplain, providing relocation assistance as necessary. Communities can apply through the State for the HMGP following a Presidential disaster declaration. The State, as HMGP grantee, is responsible for identifying and prioritizing projects. Although State and local units of governments are the eligible applicants, funds can be provided to individuals for these projects.

- Through **Section 1362 of the National Flood Insurance Program**, FEMA can purchase flood-damaged property and provide property owners the opportunity to relocate in areas not prone to flooding. To be eligible the property owner must have a flood insurance policy in force when the damage occurs and meet one of three other program criteria. In addition, the community must agree to accept title to the purchased property and manage it for open space purposes. Currently, the 1362 program is expecting to have a budget of $5 million for FY 1994 for all 50 States. Because funding is limited, this program expects a shortfall in relation to eligible properties in the Midwest.

- Several **Individual Assistance** programs can also be used to facilitate elevation or relocation out of a floodplain. The **Individual and Family Grant (IFG)** program can be used in conjunction with other programs to elevate or relocate individual structures, although funding is limited. The maximum grant is $11,900. In addition, **Disaster Housing** assistance can be provided to individuals for up to 18 months while relocation and elevation programs are being developed and implemented. Program regulations for use of the special **Cora Brown Fund** specifically refer to relocation out of hazardous areas, and to hazard mitigation and floodplain management purposes.

- FEMA's **Public Assistance** program can provide some limited assistance in the areas of elevation and relocation. For example, if entire portions of a community were to be relocated outside of the floodplain, PA can assist in rebuilding the necessary infrastructure in the new location. If a community determines that a badly damaged facility is not to be repaired, the estimated damage amount may be used to fund hazard mitigation measures.

Other Federal Programs:

HUD Programs:

• The **Community Development Block Grant (CDBG)** program can provide funds for a variety of projects, including floodplain property acquisition and relocation, or elevation. The Supplemental Appropriation Bill provided an additional $200 million for the CDBG Program, however funds are restricted to "repairing, replacing, or restoring the function of facilities damaged by or continuing services interrupted by the flood". These funds can be used for elevation of structures, or in combination acquisition/relocation projects.

• The **HOME Program** provides grants to States and larger cities and urban counties for permanent housing for low-income persons. Allocations to communities will be based on the CDBG formula. Individuals may apply for these funds if they are low income (80% of median income). There is no minimum or maximum loan amount and interest rates are determined by the recipient community. The community may decide to grant funds to individuals rather than provide loans. Funds can be used for acquisition, new construction, or elevation. $50 million was added to this program in the Supplemental Appropriations Bill. Application requirements and housing quality standards requirements have been waived and other processes streamlined.

SBA Programs:

• SBA provides disaster loans to homeowners and businesses to repair or replace property damaged in a declared disaster. Loans may be increased to cover extra costs to meet required building codes, such as the NFIP requirements. SBA may also provide loans for involuntary relocations out of special flood hazard areas, when required by local officials. In cases of involuntary relocations the entire replacement value is eligible. While SBA's legislation limits the agency's authority to make disaster loans for voluntary relocations, there are exceptions that can be made including relocations of homeowners, renters and business-owners out of special flood hazard areas. These loans would be limited to the amount necessary to repair or replace the damage at the disaster site. Loans are available for up to $120,000 for homeowners; $20,000 for renters; and, $1,500,000 for businesses. SBA loans may also be used to refinance existing mortgages in some instances.

Farmers Home Administration Programs:

• FmHA is authorized to make rural housing loans and grants to eligible applicants to buy, build, or repair housing located in a rural areas. Homes constructed or repaired through FmHA are required to meet the NFIP elevation requirements. The **Section 502 Home Ownership Loan Program**, available to low and very low income applicants

(50% and 80% respectively of the area's median income, can be used to elevate or relocate individual structures; $1.2 billion was provided in the supplemental. The maximum loan amount is $105,000, and interest rates, based on income, may be as low as 1%.

• FmHA's **Section 504 Home Improvement Loans and Repair Loans and Grants Program** can provide funds to elevate homes or farm structures; $12.5 million was added to the loan program and $12.5 million was added to the grant program in the supplemental appropriation. The grant portion of this program (up to $5,000) is made only to very low income senior citizens. The loan program may provide loans up to $15,000, with the lowest interest rate, based on income, at 1%.

• FmHA **Emergency Loans** are available to assist family sized farmers and ranchers in refinancing existing debt, as well as to cleanup and restore farms and repair farm structures. Loans can be used to elevate living areas to meet NFIP requirements or to relocate homes out of the floodplain. Loans are provided at 4.5% interest over a 30-40 year period for physical losses. The supplemental appropriation added $80 million to this program.

<u>USACE Programs:</u>

• The USACE is authorized to relocate homes out of the floodplain if it proves to be more cost effective than a structural flood control measure. However, this can be a lengthy process; the **Section 205 Program**, for projects under $5 million, can take several years to complete, while projects over this amount would take much longer.

<u>Economic Development Administration Programs:</u>

• The EDA provides funding for projects resulting in **economic growth** for communities. The Administration has received additional funding through the supplemental appropriation for its programs in the affected communities in the Midwest.

Federal Emergency Management Agency
Disaster Field Office
4080 Wedgeway Court
Earth City, Missouri 63045

Declaration: FEMA-995-DR-MO

September 25, 1993

Dear Interagency Hazard Mitigation Team Member:

Re: **Draft Interagency Hazard Mitigation Team Report**

Enclosed is the DRAFT Interagency Hazard Mitigation Team (IHMT) Report developed from the Team meeting held in Jefferson City on September 14, 1993 at the National Guard Headquarters. The issues, background and recommendations in this draft also incorporate the ideas developed at the June IHMT. The final report will serve as guidance for the update of the State Hazard Mitigation (409) Plan.

Please review the enclosed draft and fax or telephone your comments/edits and additional background information to us by Monday, October 4 at (314) 770-6657 (fax) or (314) 770-0149 (phone). We would like to finalize the report, decide on layout and format, and publish it as quickly as possible. Also check the IHMT list at the back of the report for proper spelling of your name, correct address, telephone and fax numbers.

We will be advising you about the follow-up meeting of the IHMT scheduled for October 19th. There are a few options we are considering, so we will be in touch with you later about those arrangements.

Thank you for your input at the team meeting(s) and for your continued participation on the Team.

Sincerely,

John Carleton

John Carleton
FEMA-995 Hazard Mitigation Officer

Interagency Hazard Mitigation Team Report

for the Flood of '93
State of Missouri

FEMA-989, declared May 11, 1993
and
FEMA-995, declared July 9, 1993

FEMA-989: Counties of Jefferson, Lincoln, Marion, Pike, St. Charles, Ste. Genevieve, and St. Louis.

FEMA-995: 85 counties & 3 cities: Adair, Andrew, Atchison, Audrain, Barry, Barton, Bates, Benton, Boone, Buchanan, Caldwell, Callaway, Camden, Cape Girardeau, Carroll, Cass, Chariton, Clark, Clay, Clinton, Cole, Cooper, Crawford, Daviess, Dekalb, Franklin, Gasconade, Gentry, Grundy, Harrison, Henry, Hickory, Holt, Howard, Jackson, Jasper, Jefferson, Johnson, Knox, Lafayette, Lewis, Lincoln, Linn, Livingston, Macon, Maries, Marion, McDonald, Mercer, Miller, Mississippi, Moniteau, Monroe, Montgomery, Morgan, New Madrid, Newton, Nodaway, Osage, Pemiscot, Perry, Pettis, Pike, Platte, Pulaski, Putnam, Ralls, Randolph, Ray, St. Charles, St. Clair, St. Francois, St. Louis, Ste. Genevieve, Saline, Schuyler, Scotland, Scott, Shelby, Stoddard, Stone, Sullivan, Warren, Wayne, Worth, and the Cities of Jefferson City, Kansas City, and St. Louis.

Report Date: October, 1993

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[TO BE ADDED]

EXECUTIVE SUMMARY
[TO BE ADDED]

INTRODUCTION

Disaster Declaration
During 1993, the State of Missouri has endured an ongoing flood that has produced floods of record breaking levels and duration.

On May 11, 1993, President Clinton declared parts of Missouri to be a major disaster area as a result of severe flooding damage. The disaster declaration was for individual assistance only, and covered seven counties: Jefferson, Lincoln, Marion, Pike, St. Charles, Ste. Genevieve, and St. Louis.

On July 9, 1993, as a result of further flooding, President Clinton declared 5 counties to be major disaster areas, eligible for individual assistance. On July 10, 54 counties and 1 city were added for individual assistance. With further additions, a total of 85 counties and 1 city have been declared for individual assistance, including 71 counties and 3 cities that were also declared eligible for public assistance: Adair, Andrew, Atchison, Audrain, Barry, Barton, Bates, Benton, Boone, Buchanan, Caldwell, Callaway, Camden, Cape Girardeau, Carroll, Cass, Chariton, Clark, Clay, Clinton, Cole, Cooper, Crawford, Daviess, Dekalb, Franklin, Gasconade, Gentry, Grundy, Harrison, Henry, Hickory, Holt, Howard, Jackson, Jasper, Jefferson, Johnson, Knox, Lafayette, Lewis, Lincoln, Linn, Livingston, Macon, Maries, Marion, McDonald, Mercer, Miller, Mississippi, Moniteau, Monroe, Montgomery, Morgan, New Madrid, Newton, Nodaway, Osage, Pemiscot, Perry, Pettis, Pike, Platte, Pulaski, Putnam, Ralls, Randolph, Ray, St. Charles, St. Clair, St. Francois, St. Louis, Ste. Genevieve, Saline, Schuyler, Scotland, Scott, Shelby, Stoddard, Stone, Sullivan, Warren, Wayne, Worth, and the Cities of Jefferson City, Kansas City, and St. Louis. Maps showing the FEMA-989 and FEMA-995 declared counties are provided as Figures 1 and 2.

Origin and Purpose of this Report
When the severity of an emergency exceeds the response capabilities of a state, the Governor can request the President of the United States to declare the event a "major disaster." Upon declaration, sections of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Public Law 93-288, as amended, also known as the Stafford Act) take effect, and provide the framework for the implementation of federal disaster assistance programs.

Section 409 of the Stafford Act requires state governments to plan and implement hazard mitigation measures to reduce damage and suffering from future disasters. Regulations implementing the Stafford Act (44 CFR, Part 206) call for the formation of an Interagency

Hazard Mitigation Team (Team) following each flood disaster, comprised of representatives from federal, state and local agencies. The Team's primary function is to identify practical measures that can be taken to reduce vulnerability to similar disasters in the future.

In response to the May 11 declaration, staff from FEMA and the Missouri State Emergency Management Agency (SEMA) convened a meeting of the Team on June 24, 1993. Due to the ongoing and worsening flooding throughout the summer, the first report remained in draft stage. A hazard mitigation issues paper was developed by FEMA hazard mitigation staff in August, building on the problems and recommendations identified in June, and identifying three major topic areas: levees, recovery/rebuilding, and hazardous materials. The paper was distributed for review by the Team.

On September 14, a second meeting of the Team was held to discuss the paper and to identify additional issues raised by the continuing flooding and new disaster declaration of July 9. During the course of the meeting, Team members concluded that a state floodplain management program was essential in order to prioritize and implement any other hazard mitigation recommendations.

The eight recommendations in the Hazard Mitigation Recommendations Section of this report combine the problems and recommendations identified at both Team meetings. They offer strategies that can be pursued to develop legal tools, supporting research, and public education to influence private and public actions in the floodplain.

The final section covers issues raised in the Team meetings that either did not result in specific recommendations, were not fully discussed by the entire team, or which ranged beyond the primary hazard mitigation focus of the report.

This report transmits the Team's recommendations to the Regional Director of the Federal Emergency Management Agency, the Governor of Missouri, federal, state and local agencies, and other interested parties. A list of Team members, including all those who attended meetings or commented on the report, is provided in Appendix F.

State Hazard Mitigation Plan

The Stafford Act requires States to update their State Hazard Mitigation Plan within 180 days following each disaster declaration. This report is intended to assist the State of Missouri with this process. A meeting of the Team to continue work on the Plan is scheduled for October 19, 1993.

FEMA will monitor implementation of the State's Hazard Mitigation Plan. Progress by the State in implementing its Hazard Mitigation Plan may be considered by the federal government when determining the extent and availability of federal assistance for future disasters.

Hazard Mitigation Grant Program

One source of funding to implement hazard mitigation recommendations is the Hazard Mitigation Grant Program (HMGP), authorized by Section 404 of the Stafford Act. The purpose of the HMGP is to provide up to 50% funding for cost effective projects that will substantially reduce the risk of future damage or loss from natural disasters.

The program is available after a Presidential declaration of a major disaster requiring public assistance (Section 406 of the Stafford Act). The grant funds shall not exceed 10% of the estimated federal spending on permanent restorative work on public facilities following the disaster. As of this writing, the estimated federal share available for Missouri is $9 million.

Eligible applicants include state agencies, Indian tribes, local governments, and certain private non-profit organizations which provide essential government services. The State of Missouri has announced a November 1, 1993 deadline for the receipt of HMGP applications. Any questions regarding Missouri's HMGP should be directed to: Dale Schmutzler, State Hazard Mitigation Officer, State Emergency Management Agency, P.O. Box 116, Jefferson City, MO, 65102, (314) 526-9579.

DESCRIPTION OF THE DISASTER

Although this report focuses on Missouri, the great flood of 1993 caused widespread losses and resulted in federal disaster declarations in eight other states: Illinois, Iowa, Kansas, Minnesota, Nebraska, North Dakota, South Dakota, and Wisconsin.

This section includes some of the significant effects of the 1993 floods in Missouri, but cannot be a comprehensive record of this epic event. Special thanks are due to the *St. Louis Post-Dispatch*, whose reports provided important background for this section.

The Disaster Area

The State of Missouri has a population of about 5 million people and encompasses 45 million acres (70,000 sq. miles). In non-flooding times, this area includes about 480,000 acres (750 sq. miles) of inland waterways. In 1993, the USDA estimated total agricultural land area at 29 million acres, of which about 17 million acres were planted with crops.

Missouri contains two great river systems: the Missouri and the upper Mississippi. Within the State, the Missouri River meanders 535 miles from the State's Nebraska/Iowa border until it joins the Mississippi River in St. Louis. The Mississippi River winds just under 500 miles in Missouri from the Illinois/Iowa border in the north to the Tennessee/Arkansas border in the south. The rivers have numerous significant tributaries which contributed to this year's flooding.

Missouri's Flood of 1993

The flooding of 1993 along the Missouri and upper Mississippi river basins resulted from nearly constant above-average rainfall from November, 1992, through July, 1993. River levels began rising above flood stage in Missouri in April, 1993. Record high flood stages occurred during the ensuing months. At the time of this writing (September, 1993), many areas along the Mississippi River in Missouri remain above flood stage. A summary of record river levels is provided in Table 1.

Table 1. Record High Water Stages in Missouri During the 1993 Flood (in feet)			
Mississippi River	1993 High Water Level	Previous Record	Flood Stage
Hannibal	32	29	16
St. Louis	49	43	30
Cape Girardeau	48	46	32
Missouri River			
St. Joseph	33	27	17
Kansas City	49	46	32
Jefferson City	39	34	23
Hermann	36	36	21
St. Charles	39	37	25
Source: U.S. Army Corps of Engineers, 8/31/93			

The U.S. Geological Survey (USGS) issued a report *Flood Discharges in the Upper Mississippi River Basin 1993* [Appendix B], which includes information on the magnitude and frequency of peak discharges. Figure 4 on page 6 of the report shows the large number of streamflow-gaging stations with recurrence intervals that are greater than the 100-year-flood.

Summary of Damages
According to State officials, the total damages estimate for the state of Missouri is $4 billion, which includes public and private damages, insured and uninsured. About half this figure is agricultural loss.

As of this writing, at least 28 deaths in Missouri have been attributed to the flood, including thirteen people killed in car accidents, four boys and two adults killed when waters rose as they were exploring a cave, two people electrocuted, one person killed as her home was swept away, and nine others drowned while walking, bicycling or boating.

As of September 21, 1993, the Federal Emergency Management Agency (FEMA) estimates total damages to public facilities at $125,000,000 (not including most damage to levees). A breakdown of this estimate by category is shown in Table 2.

Table 2. FEMA Public Assistance Damage Estimates (as of Sep. 21, 1993)	
A. Debris Removal	$ 10,000,000
B. Protective Measures	$ 25,000,000
C. Roads & Bridges	$ 48,000,000
D. Water Control Facilities	$ 2,000,000
E. Public Buildings	$ 15,000,000
F. Public Utilities	$ 20,000,000
G. Other	$ 5,000,000
TOTAL:	**$125,000,000**

As of August 18th, the US Department of Agriculture estimated that the flood had inundated about 2 million acres of cropland, representing about 10% of the State's planted acreage. Banks and channels of many rivers were severely eroded, and sediment was deposited over large areas of the Mississippi River Basin floodplain.

The extent and duration of the flooding caused numerous levees to fail. As of September 21, the US Army Corps of Engineers estimates that 840 of the more than 1300 public and private levees in Missouri were damaged by the flood.

Seventy-five drinking water systems were affected during the July and August flooding. Eight of the nine water plants flooded had complete water outages for a period of time. A partial water outage due to broken supply lines or portions of service areas inundated was experienced by ten supplies. The City of St. Joseph water treatment plant was flooded out for seven days, leaving 96,000 people without water. Twenty-nine boil water notices due to actual or suspected system contamination were issued, and boil orders continue in some communities to date. At the peak of the flooding 95 wastewater treatment systems were flooded or threatened.

Numerous highways, county and city roads, and wooden bridges were flooded or rendered inaccessible by flooding. Flooding created large holes in gravel roads, washed out culverts, and cracked some concrete bridges and low water spans. Other bridges collapsed. [What about federal highways?]

The prolonged flooding led to the closing of the Mississippi River to barge traffic from St. Louis, north. The *St. Louis Post-Dispatch* reported estimates that 2,000 grain barges were stranded by the river closing, along with hundreds of other barges carrying coal, liquid fuel, chemicals and other products.

Industrial and agricultural areas were inundated, which caused concern about the transport and fate of industrial chemicals, sewage effluent, and agricultural chemicals in the floodwaters. On September 15th, the U.S. Environmental Protection Agency reported that they had recovered 247 large storage tanks, 1178 smaller tanks, 3740 drums (over 15 gallons), and 5731 smaller containers that were displaced by the flood in Missouri. On July 30, floodwaters caused leaks in Phillips 66 liquid propane tanks storage facility near the mouth of River Des Peres in St. Louis. Fearing the possibility of an explosion, authorities evacuated over 10,000 people from the area.

Recovery Assistance Programs

As flooding displaced people from their homes in May, the American Red Cross activated their Mass Care feeding program and set up two shelters. The ARC housed 32 people in their temporary facilities and served more than 30,621 meals. There were 109 families placed into hotels/motels and 59 into monthly rentals. Following the July 9 declaration, the ARC mass shelters housed 5,201 individuals, placed 1,449 families into motels/hotels and 2076 into monthly rentals. There were 1,166,166 meals served.

Immediately following the federal disaster declarations, telephone hotlines enabled residents to obtain information about assistance programs. Following the May 11 declaration, ??? Disaster Application Centers (DACs) opened in the seven declared counties. After the July 9 declaration, 33 DACs opened in locations throughout Missouri. This number includes two mobile DACs that revisited areas throughout the State.

As of September 16, 1993, approximately 30,000 individuals and families had registered by telephone or at DAC locations to request disaster assistance. More than $25 million had been disbursed to homeowners by the Disaster Housing Program to perform emergency repairs on their residences or to assist displaced families with temporary housing. Nearly $6 million had been approved by the Individual and Family Grant Program to help meet immediate needs of victims. More than $93 million in low-interest loans had been approved by the Small Business Administration to cover disaster-related losses to homeowners and businesses.

FLOODING AND FLOODPLAIN MANAGEMENT IN MISSOURI

Missouri has received eight presidential flood disaster declarations in the last 20 years [1973, 1979, 1982, 1984, 1986, 1990, May 1993 and June 1993]. The state has also experienced floods which have not warranted a presidential disaster declaration, such as those which occurred in 1983, 1985, and the spring of 1986. Although the level and extent of damages vary, damages reoccur at frequent intervals to cities, towns and rural residents located within the floodplain. A list of the declared counties since 1984 is provided in Appendix A.

Local Land Use Regulations and Participation in the National Flood Insurance Program
As of March 8, 1993, the Missouri Association of Counties estimated that of the 114 counties in Missouri, 10 have planning and 27 have planning and zoning authority. First and second class counties can issue building permits without planning and zoning authority, but third class counties cannot. Chapter 89, Municipal Planning and Zoning, gives all cities and villages planning and zoning authority and the right to issue building permits. Among Missouri's municipal jurisdictions, most larger jurisdictions exert zoning authority, but many smaller ones do not.

Missouri's 1982 Executive Order 82-19 designates the Director of the Missouri Department of Natural Resources to be the State Coordinator for the National Flood Insurance Program (NFIP). It also assigns the responsibility to design and oversee all State construction planned in floodplains to the Office of Administration, Division of Design and Construction. This Executive Order provides the minimum framework required to allow the State to participate in the NFIP.

Local jurisdictions may exercise discretion as to whether they wish to participate in the NFIP. Sixty-five of the 114 counties in Missouri participate in the NFIP. All of the counties along the Mississippi and Missouri Rivers participate, incorporating the bulk of the land area, floodplain and population of Missouri. In 1993 alone, four new counties joined the program before the major flooding occurred. However, Missouri has 544 communities: 108 are either sanctioned, suspended, or non-participants in the NFIP.

Even in jurisdictions that participate in the NFIP, only approximately 9% of the 169,000 structures in the floodplain have NFIP policies in force. Although flood insurance is required on structures backed by federally-backed mortgages, many lending institutions have not fulfilled their responsibility to enforce the insurance requirement. A recent FEMA/FIA-sponsored study of 2,000 SBA applications submitted from the multistate 1993 Midwest flooding produced the following information:

1. Of those individuals who have applied for assistance, some 40% were not in the 100-year floodplain
2. Of the remaining 60%, only about half those people carried a mortgage
3. Even if there were 100% lender compliance with the mandatory purchase requirement on federally backed mortgages, only about half the mortgages issued would require purchase of flood insurance.

Officials representing FEMA/FIA recognize the need for increased marketing of flood insurance and compliance required for purchase of flood policies for people who obtain federally regulated and insured mortgages. Proposed legislation before Congress would tighten procedures to ensure that lenders enforce mandatory flood insurance purchase provisions.

Removing Repetitively Flooded Residences

Some houses damaged in these floods have been repeatedly flooded in the past. Among the limited percentage of structures that have flood insurance, the NFIP has identified 2,518 insured properties in 29 jurisdictions that have had two or more flood loss claims since 1978. A breakdown is provided in Appendix E.

Each flooding event leads to distress and costs for residents, as well as potential response and recovery expenses and lost tax revenues for local, state and federal governments. Many flood victims and their communities have recently expressed interest in acquiring repeatedly flooded properties and converting them to permanent open space uses.

Many federal programs are available to assist local communities in putting together acquisition programs. These include:

1. NFIP Section 1362
2. FEMA Hazard Mitigation Grant Program
3. Community Development Block Grant
4. Small Business Administration loans

FEMA sponsored 14 "Relocate, Rebuild & Buyout" workshops for local government officials during the first two weeks in September, 1993. These workshops advised officials about their responsibilities in federally assisted buyouts, and specific steps to begin the application process.

National efforts are underway to provide further help to jurisdictions to plan and carry out buyouts of floodplain properties. Proposed legislation before Congress would increase the assistance available for buyouts, providing the following:

1. Planning grants to help communities deal with repetitive loss properties
2. Grants for removal of properties from the floodplain
3. Additional insurance coverage to include mitigation, which could cover elevation or relocation

Ongoing NFIP enforcement activities

As part of continuing efforts to assess local enforcement of the NFIP, FEMA Region VII and the State of Missouri conduct "community assistance visits" (CAVs). Visits are planned over the next year to monitor local compliance with NFIP standards during rebuilding after the ongoing flooding. FEMA Region VII NFIP staff are also planning to conduct a CAV to state agencies for the purpose of determining State compliance with NFIP regulations.

HAZARD MITIGATION RECOMMENDATIONS

The recommendations included in this section offer strategies that can be pursued to develop legal tools, supporting research, and public education to influence private and public actions in the floodplain.

These recommendations have been developed from discussions held by the Team in June and September, 1993. Additional concerns raised by the Team are discussed in the next section of this report.

The agenda for the September 14 Team meeting was organized around three topical areas: Flood Control Infrastructure, Residential Structures and Hazardous Materials. A recurring theme of both the June and September Team meetings was the absence of effective floodplain management by the State and local communities. This issue was perceived to have an impact on each of the other problem areas under discussion. Team members at the September 14 meeting concluded that a state floodplain management strategy was essential in order to prioritize and implement any other hazard mitigation recommendations. The recommendations have been organized to reflect that focus.

ISSUE: Statewide Floodplain Management

Background: Many local jurisdictions do not participate in the National Flood Insurance Program (NFIP) and have no floodplain management guidelines. Other local jurisdictions and state agencies have floodplain management regulations on the books but lack staff to enforce them. Only one jurisdiction in Missouri, the City of Arnold, participates in the NFIP's Community Rating System (CRS). The CRS encourages communities to exceed minimum NFIP management guidelines and thereby obtain lower flood insurance rates for their residents. Most of the Team agreed on the need for the State to establish a strong floodplain management policy that would set baseline floodplain management standards for all jurisdictions in Missouri, encourage jurisdictions to participate in the CRS, and assist jurisdictions with floodplain management enforcement.

Missouri's Executive Order 82-19 was issued in 1982 to provide a framework for the creation of floodplain management policy, but has yet to be enforced. The State Hazard Mitigation Team, convened in response to the federal disaster declarations, provides a forum for recommending changes in state floodplain management policy and enforcement mechanisms.

Recommendation 1. Strengthen state floodplain management guidelines and implementation practices. This should follow two tracks:

1A. Review, update, and rewrite the Governor's Executive Order 82-19, which provides a framework for the creation and enforcement of a State Floodplain Management Plan. [Note: This recommendation was also included in the Team Report following the 1986 flood disaster declaration].

1B. Develop draft floodplain management legislation. This process will start by exploring options presented in the Model State Legislation for floodplain management, including basic regulations, statutes, innovative techniques, etc., developed by the Association of State Floodplain Managers.

Lead Agency: Missouri Department of Natural Resources
Support Agencies: FEMA, the State Emergency Management Agency, other State Hazard Mitigation Team participants, the State Legislature and the Office of the Governor.
Funding: 1A) FEMA Community Assistance Program/State Support Services Element, 1B) FEMA Hazard Mitigation Assistance Funding. [Any state funding???]
Schedule: Prepare draft legislation for introduction in the 1994 legislative session.

ISSUE: Defining Market Value

Background: Under NFIP regulations, when a building is "substantially improved," the building's lowest floor must be elevated to or above the 100-year "base flood elevation" in the repair process. "Substantial improvement" is defined by regulations as "any reconstruction, rehabilitation, addition or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the 'start of construction' of the improvement. This term includes structures which have incurred 'substantial damage,' regardless of the value of or actual cost of repair work performed." Different areas of the country have used different ways to estimate the market value, including variations on pre-flood assessed values and replacement cost.

FEMA has decided not to dictate specific guidelines on this issue. A September 3, 1993 FEMA policy statement allows communities to choose their own methods for calculating "market value," unless State regulations mandate one method.

In Missouri, the assessed value is often considerably less than the replacement cost of structures. Using replacement cost as the basis for determining "market value" would cause many fewer damaged structures to trigger elevation requirements of the NFIP than using most variations on pre-flood assessed values.

There is no Missouri state law establishing a method for communities to determine "market value." Accordingly, each local jurisdiction has been forced to make a difficult decision as to which method to use. This has made the rebuilding process more complex for residents who must wait for their communities to reach a decision on whether they must elevate or not. A state law establishing a set method for determining "market value" would make it easier to train local jurisdictions in the process of enforcing NFIP regulations during rebuilding, which would result in greater enforcement and compliance with those regulations.

Recommendation 2. Create a State "market value" definition. The State of Missouri should establish by State law how local jurisdictions should define "market value" of structures for the purpose of compliance with NFIP regulations.

ISSUE: Tracking Floodplain Uses

Background: Many local jurisdictions do not keep track of the use and development of land in the floodplain. Such data would be useful for providing data on the history of flood damage on each parcel, which could help set priorities for flood hazard mitigation planning at a local level, including acquisition programs.

The problem of enforcing use restrictions in the floodplains is also present in state and federal lands. For example, the U.S. Army Corps of Engineers allowed structures to remain on leased land in designated floodplains on condition that the structures would not be used as primary residences and that leaseholders acknowledged that flooding could occur and that they would not be eligible for compensation for flood losses. Despite these explicit lease restrictions, many such properties were used as primary residences, resulting in major losses to families when flooding occurred. Besides raising questions about eligibility for disaster assistance, this illustrates that any future program to acquire properties in the floodplain and deed land to open space uses must include monitoring to ensure that use restrictions are observed.

St. Charles County has begun implementing administrative procedures to track building permits and elevation certificates within its "density floodway."

Recommendation 3. Improve floodplain use tracking systems. The State should provide assistance to counties and cities to develop or improve their floodplain use tracking systems. Each lot in the floodplain should have a county file that keeps track of permits and certificates relating to it. Such tracking systems should also be maintained for State and federal lands.

Lead Agency: Missouri Office of Administration/Department of Natural Resources (???)
Support Agency: State Legislature
Schedule: FY 1994
Funding: Legislative appropriation

ISSUE: NFIP Training

Background: Enforcement of NFIP floodplain management regulations that will prevent future flood losses requires knowledgeable local enforcement officials. The Missouri Department of Natural Resources (DNR) sponsors workshops on the NFIP for local officials three to four times per year. Following the flood crests in August, FEMA and DNR mounted a special outreach program to explain and answer questions on NFIP regulations.

Despite these efforts, a large number of communities lack staff who have been trained in NFIP compliance procedures. In some cases, there was confusion about the respective roles played by local officials to determine substantial damage, and loss verifiers from disaster assistance programs and insurers.

Team members were concerned that flood victims who receive loans, grants and insurance settlements to repair flood damage may begin rebuilding without obtaining information on potential elevation and other code requirements. Some members suggested that all repair settlements be withheld until building permits are issued, but others felt this would create unacceptable delays in the delivery of insurance settlements and disaster relief. Team members agreed that the ultimate objective should be to improve code enforcement capabilities at the local level.

Expanded NFIP training efforts could also help communities participate in optional NFIP programs, such as the Community Rating System (CRS) and the Section 1362 buyout program. As noted in Recommendation #1, the CRS system provides incentives to communities to adopt more than the minimum floodplain management requirements of the NFIP. Through Section 1362 of the NFIP, FEMA can purchase previously flood-damaged property and provide property owners the opportunity to relocate in areas not prone to flooding. To be eligible the property owner must have a flood insurance policy in force when the damage occurs and meet one of three other program criteria. In addition, the community must agree to accept title to the property and manage it for open space. Property owners are offered a settlement based on pre-flood fair market value less the amount of the claim settlement.

One way to expand the reach of FEMA and DNR training efforts is to develop videotapes and other training materials on the NFIP for year-round training and for distribution to community officials immediately following a major flood.

Recommendation 4. Expand NFIP education efforts. FEMA and the State of Missouri should increase ongoing NFIP education efforts for local floodplain management officials. FEMA and the State should evaluate existing training materials and consider developing new videotapes and publications that could be disseminated to local officials to refresh or strengthen their knowledge of NFIP compliance procedures.

Lead Agencies: FEMA/DNR
Funding: May be eligible for partial funding from FEMA's Hazard Mitigation Grant Program or Disaster Preparedness Improvement Grant Program
Schedule: Begin as soon as possible

ISSUE: Hydrology Maps

Background: In view of the major flooding that has occurred on both the Mississippi and Missouri Rivers, it is important to evaluate both the existing hydrology and profiles for these rivers. [Need more background information to tie into the recommendation, which was made at the June Team meeting.]

Recommendation 5. Remap Mississippi/Missouri River hydrology. The FEMA Federal Insurance Administration (FEMA/FIA), in conjunction with the US Army Corps of Engineers (USACE), should review existing studies of the Mississippi and Missouri Rivers with respect to the stages which have occurred and update published reports if necessary.

Lead Agency: FEMA/FIA, USACE???
Support Agency: Missouri DNR???
Funding: Existing budgets???
Schedule: 1994???

ISSUE: Defining Floodways

Background: The existing uncoordinated levee system does not provide for adequate floodways. The political and economic realities that dictate emergency repair of existing levees often preclude alternative strategies that might allow for increases in floodway capacity. Such strategies might include set-back levees, purchase of flood easements, etc. Any new planning effort could build on the 1950s-era "Pick Sloan" floodway plan for the Missouri River, which authorized a 5,000 ft. flow-way from Kansas City, Missouri to St. Louis. [Jerry Brabander, more specifics???].

Recommendation 6. Develop long-term floodway plan. The Missouri Department of Natural Resources (DNR) should develop a long-term floodway plan for the Mississippi and Missouri Rivers that would study ways to modify the current levee system and increase floodway capacity, thereby reducing flood damages. This should be coordinated with multi-state watershed planning efforts.

Lead Agency: Missouri DNR
Support Agency: USACE
Funding: USACE Section 22
Schedule: To be determined

ISSUE: Defining Flood Risk Behind Levees

Background: Under current regulations, communities that build levees to federal standards to protect an "A-zone" floodplain may petition the FIA to redesignate the area as no longer constituting an "A-zone." As a result, people obtaining federally-backed loans for development behind the levee are no longer required to carry flood insurance. In addition, removing the A-zone designation from areas behind levees may provide a false impression to people that there is no longer any risk of flooding.

As became painfully clear during this flood, even levees designed to federal standards do not offer a 100% guarantee of protection against flooding. Maintaining a special A-zone designation behind levees would be one vehicle for informing people of the residual risk of construction behind levees. In addition, the insurance coverage that would be purchased due to the A-zone designation would help limit economic distress and disaster aid requirements when levee breaks occur in the future.

Recommendation 7. Create special A-zone designation behind levees. The Flood Insurance Administration (FIA) should create a special A-zone designation for floodplains protected by levees meeting federal standards. This A-levee designation would probably have lower premiums than regular A-zones (reflecting lower actuarial risks), but would still carry a mandatory purchase requirement for properties with federally-backed mortgages.

Lead Agency: FEMA/FIA
Funding: Existing budgets
Schedule: Ongoing???

ISSUE: Hazardous Materials

Background: Hazardous materials are stored in floodplains without adequate containment for preventing them from being released during floods. One notable case occurred on the River Des Peres in St. Louis, where flooding caused propane tanks at the Phillips Petroleum facility to dislodge from their base and start leaking. The risk of explosion caused authorities to evacuate more than 10,000 people immediately. Fortunately, no explosions occurred.

According to the St. Louis Fire Chief, if five-30,000 gallon propane tanks had broken loose and released their contents, a propane cloud 3,000 feet in diameter and 12 feet thick would have formed. Since propane vapor is heavier than air, it would have traveled along the ground, like a fog bank, until it reached an ignition site. Additionally, if five tanks had exploded, they would have destroyed walls and roofs up to one mile and caused window damage up to two miles. An initial explosion would have had a disastrous effect on the remaining 46 propane tanks.

The U.S. Environmental Protection Agency (USEPA) reports that as of September 15th, they had recovered 247 large storage tanks, 1178 smaller tanks, 3740 drums (over 15 gallons), and 5731 smaller containers that were displaced by the flood in Missouri.

Numerous straps securing chemical and gas storage tanks were apparently broken by the power of the flood. Some facilities managed to prevent tanks from breaking away by emptying residual product and refilling the tanks with water to eliminate buoyancy during the flood.

Concerns have also been expressed that hazardous materials stored in flooded residences may cause contamination problems.

Recommendation 8. Enforce hazardous materials containment/relocation standards. Develop a program at the local and State level to enforce secondary containment standards for storage of hazardous materials or to relocate hazardous materials located in the floodplain. Use the information on hazardous materials storage compiled by the US EPA Protection Agency under the provisions of SARA Title III (Community Right-to-Know) to publish inventories of hazardous materials stored in flood hazard zones, and prioritize inspections.

Lead Agency: Missouri DNR
Support Agencies: Local Fire Districts, Local Emergency Planning Commissions, USEPA, SEMA
Funding: To be determined
Schedule: Begin as soon as possible in industrialized areas

OTHER ISSUES

This section includes issues raised in Team meetings that either did not result in specific recommendations, were not fully discussed by the entire team, or ranged beyond the primary hazard mitigation focus of this report.

National Weather Service Weather Wire: National Weather Service representatives recommended that more agencies should subscribe to their "weather wire," which automatically distributes current weather information. During the 1993 flooding event, weather service staff found themselves having to fax daily weather information separately to FEMA/Kansas City, SEMA, the FAA and others because those offices did not subscribe to the National Weather Service Weather Wire. Lease of equipment for this service is $130/month.

NFIP commercial flood insurance limits: The Federal Insurance Administration (FIA) limits commercial coverage to a maximum of $250,000 for buildings and $300,000 for contents. Businesses traditionally purchase excess line coverage from private insurers to meet their additional needs. Currently, the insurance industry has limited the availability of supplemental coverage, or restricted their coverage to policies with large deductibles, considerably in excess of the NFIP coverage. The result is that business and industry have suffered major uninsured losses. The Team discussed recommending that the FIA raise the NFIP commercial coverage limits. Since the Team meeting, a bill has been introduced in the Missouri Legislature for the State to create a commercial flood insurance pool to cover the gap between maximum NFIP coverage and the common private insurance deductible of $1 million. Some Team members were concerned that expanding publicly provided or mandated commercial coverage beyond current limits could result in further incentives for unwise commercial development in floodplains, unless the coverage were contingent upon floodplain management regulation.

Damp grain: Damp grain salvaged from the flood may be contaminated with mold and aflatoxin. Some team members were concerned that this grain could have been sold for animal feed, and possibly end up in the milk supply. There has not been sufficient testing to determine how serious a problem this has been during this flood event. Grain contaminated with aflatoxin may be distilled into alcoholic beverages or alcohol gasoline additives. However, the residue from such processes may remain contaminated with aflatoxin and should not be used for animal feed. The State Department of Health is considering a study to determine the extent of aflatoxin contamination in damp grain.

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Appendix D: Missouri Communities Sanctioned or Not Participating in the National Flood Insurance Program, as of September 8, 1993.
Appendix E: List of NFIP repetitive losses, by jurisdiction
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APPENDIX A
Missouri Disaster Declarations Since 1984

July 1993 Flood Declaration (FEMA-995)
85 counties & 3 cities: Adair, Andrew, Atchison, Audrain, Barry, Barton, Bates, Benton, Boone, Buchanan, Caldwell, Callaway, Camden, Cape Girardeau, Carroll, Cass, Chariton, Clark, Clay, Clinton, Cole, Cooper, Crawford, Daviess, Dekalb, Franklin, Gasconade, Gentry, Grundy, Harrison, Henry, Hickory, Holt, Howard, Jackson, Jasper, Jefferson, Johnson, Knox, Lafayette, Lewis, Lincoln, Linn, Livingston, Macon, Maries, Marion, McDonald, Mercer, Miller, Mississippi, Moniteau, Monroe, Montgomery, Morgan, New Madrid, Newton, Nodaway, Osage, Pemiscot, Perry, Pettis, Pike, Platte, Pulaski, Putnam, Ralls, Randolph, Ray, St. Charles, St. Clair, St. Francois, St. Louis, Ste. Genevieve, Saline, Schuyler, Scotland, Scott, Shelby, Stoddard, Stone, Sullivan, Warren, Wayne, Worth, and the Cities of Jefferson City, Kansas City, and St. Louis.

May 1993 Flood Declaration (FEMA-989)
7 counties: Jefferson, Lincoln, Marion, Pike, St. Charles, Ste. Genevieve, St. Louis

May 1990 Flood Declaration (FEMA-867)
1 county: Jackson County

October 1986 Flood Declaration (FEMA-779)
29 counties: Bates, Benton, Boone, Callaway, Cass, Clark, Cole, Cooper, Franklin, Gasconade, Henry, Howard, Johnson, Lewis McDonald, Miller, Moniteau, Montgomery, Morgan, Osage, Pettis, Ralls, St. Charles, St. Clair, St. Louis, Saline, Scotland, Shelby, Vernon, Warren.

June 1984 Flood Declaration (FEMA-713)
12 counties: Andrew, Atchison, Buchanan, Caldwell, Clinton, DeKalb, Gentry, Holt, Knox, Platte, Worth

[INSERT FIGURES]

APPENDIX F

FEMA-989 and FEMA-995 Interagency Hazard Mitigation Team

(Note: Combined list of people who participated one or both of the Team meetings in St. Louis on June 24, 1993 and in Jefferson City on September 14, 1993, or who provided comments on the draft report)

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STATE AND LOCAL PROGRAMS AND SUPPORT DIRECTORATE

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Director Witt asked me to send you the information on the disaster critique. Please let me know if we can assist you or if you have any questions.

Dick Krimm

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Washington, D.C. 20472

OCT 29 1993

MEMORANDUM FOR: See Distribution

FROM: Richard W. Krimm
Deputy Associate Director
State and Local Programs
and Support

SUBJECT: Critique of Disaster Operations in the Midwest

As indicated in my October 1, 1993, memorandum, we will be conducting a critique of our Midwest disaster operations. This critique will provide an excellent forum for discussions of significant issues which arose during disaster operations. The critique will also present us the opportunity to discuss lessons learned and identify corrective actions to be taken. In addition, these discussions will be a timely learning tool for managers new to the response and recovery programs.

I would like to thank you for submitting issues for inclusion in the agenda. There were a number of important issues submitted; however, it was impossible to include all of them. Attached is an agenda with a few key issues that will be crucial to our future operations.

You will note that the critique design is an approximate day-and-one-half of plenary sessions, one full day with State Coordinating Officers, and one-and-one-half days of separate program sessions. Detailed agendas for each of the program breakout sessions will be provided to you within the next two weeks.

In order to have a workable group, I ask that you limit attendees to the following: the Federal Coordinating Officer, the Deputy Federal Coordinating Officer, the individual in charge of Response operations (if different than the Deputy Federal Coordinating Officer), the Individual Assistance Officer, the Public Assistance Officer, the Program Support Officer, the Hazard Mitigation Officer and the Public Affairs Officer. The key management staff of the Missouri processing office should also plan to attend. I realize that as staff rotated, more than one individual may have functioned in each of these positions. The individuals attending the critique should be those who were present during the most critical phase of the operations. I also ask that the designated Response and Recovery Chiefs from all Regions attend. Please submit the names of those attending to the attention of Wendy Drucker, SL-DA-PC-OP by November 10, 1993.

I would ask also that each Federal Coordinating Officer invite the State Coordinating Officer to a Monday evening reception and a full day session on Tuesday. The objective of the Tuesday session is to learn about the States' perspectives on the operations. In order to best use the available time, the State Coordinating Officers should be encouraged to prepare a twenty minute overview and commentary on their States' responses and recoveries. The balance of the day will be available for open discussions on common themes raised by the State Coordinating Officers. In inviting the State personnel, please be sure to make it very clear that the invitation is for Monday evening and Tuesday only. It would be considerably unfair to our guests, and no doubt awkward for all of us, to have them arrive under the misimpression that they are to remain all week.

The critique will be held December 6 - 10, at the Sheraton-West Port Inn (314-878-1500) in St. Louis, Missouri **(Note: Dates and Hotel change)**. Room reservations have been blocked at the hotel until November 19. Reservations must be confirmed with Diner's Club numbers by that date. Travel should be charged to the disaster where the attendee worked or is working. For those who were not associated with a specific disaster, travel should be charged to FEMA-955-DR-MO. Please ensure that your name is added to the appropriate Combined Travel Authorization for FY 94.

I look forward to seeing you. If you have any questions in the meantime, I would suggest that you call Patricia Stahlschmidt at 202-646-4066.

Attachment

MIDWEST DISASTER OPERATIONS CRITIQUE

MONDAY, DECEMBER 6, 1993

1:00 p.m.	Welcome / Plenary Discussion: Public Affairs
5:00 p.m.	Adjourn

TUESDAY, DECEMBER 7, 1993

8:30 a.m.	State Presentations
12:00 p.m.	Lunch
1:00 p.m.	State Presentations (con't)
3:00 p.m.	Plenary Discussion: State Issues
5:00 p.m.	Adjourn

WEDNESDAY, DECEMBER 8, 1993

8:30 a.m.	Plenary Discussion: Federal Response Plan & Mitigation
12:00 p.m.	Lunch
1:00 p.m.	Program Breakouts
5:00 p.m.	Adjourn

THURSDAY, DECEMBER 9, 1993

8:30 a.m.	Program Breakouts
12:00 p.m.	Lunch
1:00 p.m.	Program Breakouts
5:00 p.m.	Adjourn

FRIDAY, DECEMBER 10, 1993

8:30 a.m.	Plenary Discussion: Role of Central Processing
11:00 a.m.	Wrap-up / Adjourn

Distribution:

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Region I-X

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993-DR, 994-DR, 995-DR, 996-DR,
997-DR, 998-DR, 999-DR, 1000-DR,
and 1001-DR

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