

FLOOD MATERIAL

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Gerry Galloway
Eric Lichtenburg
Chris Edley
Kevin Neyland
Ron Cogswell
Mark Weatherly

10 pages to follow

Note: Enclosure/Attachment referenced in letters are not enclosed with this fax.

From: Renée (395-4590)

January 24, 1994

NOTE TO: SEE DISTRIBUTION LIST

FROM: T.J. Glauthier, Katie McGinty, and Jim Lyons

SUBJECT: Floodplain Management Task Force

The next meeting of our interagency working group has been scheduled for **Wednesday, January 26th, 10:30 - 12:30, room 248** of the Old Executive Office Building.

We intend to discuss three major items of ongoing interest to the task force:

1. BG Galloway, executive director of the study team, will be introduced. He will discuss progress made in establishing the floodplain management study team and developing a strategy paper for comprehensive recovery policy and program development. Mark Schaefer should update the task force on scientific and technical work, and Eric Lichtenburg should speak on the work of the economics team.
2. Each agency should be prepared to discuss levee/wetland progress to date and anticipated successes or problems in the near future. Summary material that can be used in briefing the National Governors Conference at their January/February meeting and others would be appreciated.
3. Each agency should be prepared to update the task force on their knowledge of the likelihood of spring flooding, and what preparations they are making to address this threat. Again, summary handouts would be appreciated.

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January 10, 1994

TO: BG Gerald E. Galloway, Jr.

FROM: Administration Floodplain Management Task Force --
T.J. Glauthier, Associate Director, Office of Management and Budget *Signed*
Kathleen McGinty, Director, White House Office of Environmental Policy *Signed*
James R. Lyons, Assistant Secretary of Agriculture for Natural Resources *Signed*

SUBJECT: Directive on the Establishment of an Interagency Floodplain Management Review Committee

The purpose of this directive is to establish an Interagency Floodplain Management Review Committee and to designate you as Executive Director of the Committee. The Committee will undertake an intensive review to: determine the major causes and consequences of the Great Flood of '93; evaluate the performance of existing floodplain management and related watershed management programs; and, make recommendations as to what changes in current policies, programs, and activities would most effectively achieve risk reduction, economic efficiency, and environmental enhancement in the floodplain and related watersheds. As appropriate, the Committee should identify legislative initiatives that might be proposed by the Administration.

Because floodplain management involves a complex intergovernmental system of Federal, State, tribal, and local responsibilities, you will ensure outreach to and consultation with other levels of government and the public. You should conduct your activities and deliberations in an open environment.

The Review Committee will include a multi-disciplinary and interagency group of experts in fields relevant to floodplain management. The individuals listed at Attachment 1 have been assigned by their agencies to the Committee. As necessary, you are authorized to request additional assistance, on an ad-hoc basis, from those agencies and from activities not currently represented on the Committee. The Council of Economic Advisors staff will assist in coordination of economic analysis support. The Justice Department will provide legal assistance. FEMA will coordinate public affairs and Congressional and intergovernmental relations for the Committee. The Scientific Assessment and Strategy Team, which was established by a White House directive dated November 24, 1993, (Attachment 2), is further assigned to the Review Committee and will operate under the Committee's direction.

Resources to support the salaries of individuals assigned to the Committee will be provided by parent agencies. You will be provided an appropriate budget to support the travel and other activities of the committee. As coordinated by OEP and OMB, you will be provided a three-person administrative support staff, office space, and supporting equipment.

For the period of this study, you will be assigned to the White House and will report directly to us. You will serve as the primary representative of the Committee for purposes of public outreach and communications and will have executive responsibility for organizing and executing the work of the Committee.

Not later than February 1, 1994, you will submit to us for approval a detailed mission statement for the Committee and a time-phased work plan. The mission statement should reflect coordination with as broad a segment of interested activities as possible. Not later than May 1, 1994, you will provide a preliminary report to us on the results of the review. A final report will be issued to the public by June 1, assuming expeditious review by the Administration. Every 3 weeks, or more frequently if required, you will provide us with in-process-reviews of the effort.

Attachments (2)

January 10, 1994

TO: Mike Espy, Secretary of Agriculture
Togo D. West, Secretary of Army
Bruce Babbitt, Secretary of the Interior
Carol Browner, Administrator, Environmental Protection Agency
James Lee Witt, Director, Federal Emergency Management Agency

FROM: Administration Floodplain Management Task Force --
T.J. Glauthier, Associate Director, Office of Management and Budget *Signed*
Kathleen McGinty, Director, White House Office of Environmental Policy *Signed*
James R. Lyons, Assistant Secretary of Agriculture for Natural Resources *Signed*

SUBJECT: Establishment of an Interagency Floodplain Management Review Committee

As you may be aware, as a consequence of the disastrous Midwest floods of 1993, the Administration has established an Interagency Floodplain Management Review Committee. This Committee, operating under the direction of the Interagency Floodplain Management Task Force, will undertake an intensive review to determine the major causes and consequences of the 1993 floods; evaluate the performance of existing floodplain management and related watershed management programs; and, make recommendations as to what changes in current policies, programs, and activities would most effectively achieve risk reduction, economic efficiency, and environmental enhancement in the floodplain and related watersheds. As appropriate, the Committee will identify legislative initiatives that might be proposed. The Committee will operate with a deadline of June 1, 1994, for its final report.

Because floodplain management involves a complex intergovernmental system of Federal, State, tribal, and local responsibilities, the Committee will conduct outreach to and consultation with all levels of government and the public. Its operations will be conducted in an open environment.

The Committee includes a multi-disciplinary and interagency group of experts in fields relevant to floodplain management, and we thank you for providing members of your agency to serve on the Committee (Attachment 1 lists all members established to date). The Committee will be assisted by the staff of the Council of Economic Advisors, the Office of Science and Technology Policy, and the Justice Department. An element of the Committee, the Scientific Assessment and Strategy Team, is working in Sioux Falls, South Dakota, to gather and analyze data related to the flood and its impacts.

We would ask your personal support of this important effort. Because of the short timeframe for the conduct of the study, it is essential that requests for information submitted to your agency be quickly addressed. We are sure that your agency will find the data developed by the Committee to be of immediate use and supportive of your activities in the affected areas.

We have also attached a copy of the preliminary mission statement for the Committee. Because of the intense interest in this review, we have decided to leave it open to comment until January 17, 1994, and would welcome any thoughts you might have.

We thank you in advance for your assistance. Questions should be addressed to BG G.E. Galloway, Executive Director of the Committee, at 202/395-3706.

Attachments (2)

cc: Jack Gibbons, Office of Science and Technology Policy
Mark Schaefer, Office of Science and Technology Policy
Laura Tyson, Council of Economic Advisers
Eric Lichtenberg, Council of Economic Advisers
Oleta G. Fitzgerald, Executive Assistant, USDA
Keith Collins, Acting Assistant Secretary for Economics, USDA
Michael Dunn, Administrator, Farmers Home Administration, USDA
Randy Weber, Acting Administrator, Agricultural Stabilization and Conservation Service, USDA
R.D. Plowman, Administrator, Agricultural Research Service, USDA
Kenneth Ackerman, Manager, Federal Crop Insurance Corporation, USDA
Eugene Moos, Undersecretary for International Affairs and Commodity Programs, USDA
Bob Nash, Undersecretary for Small Community and Rural Development, USDA
Galen S. Bridge, Acting Chief, Soil Conservation Service, USDA
Edward G. Dickey, Acting Assistant Secretary of Army - Civil Works
Bob Armstrong, Assistant Secretary for Lands and Minerals Management, DOI
Ada E. Deer, Assistant Secretary for Indian Affairs, DOI
George T. Frampton Jr., Assistant Secretary for Fish and Wildlife and Parks, DOI
Elizabeth Rieke, Assistant Secretary for Water and Science, DOI
Sylvia Lowrance, Associate Deputy Administrator, EPA
James Makris, Director, Chemical Emergency Preparedness and Prevention Office, EPA
Don Collins, Deputy Administrator, Federal Insurance Administration
Robert Volland, Acting Deputy Associate Director, Mitigation Directorate, FEMA
Richard Krimm, Associate Director, Response and Recovery Directorate, FEMA

January 18, 1994

Honorable Jim Edgar
Governor of Illinois
Springfield, Illinois 62706

Dear Governor Edgar:

As a consequence of the disastrous Midwest floods of 1993, the Administration has established an Interagency Floodplain Management Review Committee that will operate under the direction of the Interagency Floodplain Management Task Force chaired by myself; Katie McGinty, Director of the White House Office of Environmental Policy; and Jim Lyons, Assistant Secretary of Agriculture. This Committee will undertake an intensive review to determine the major causes and consequences of the 1993 floods; evaluate the performance of existing floodplain management and related watershed management programs; and, make recommendations as to what changes in current policies, programs, and activities would most effectively achieve risk reduction, economic efficiency, and environmental enhancement in the floodplain and related watersheds. As appropriate, the Committee will identify legislative initiatives that might be proposed by the Administration. The Committee will operate with a deadline of June 1, 1994, for its final report.

Because floodplain management involves a complex intergovernmental system of Federal, State, tribal, and local responsibilities, the Committee will conduct outreach to and consultation with all levels of government and the public. Its operations will be conducted in an open environment. Input from State governments will be especially critical.

The Committee includes a multi-disciplinary and interagency group of Federal experts in fields relevant to floodplain management. The Committee will be assisted by the staff of the Council of Economic Advisors, Council on Environmental Quality, Office of Science and Technology Policy, and the Department of Justice. An element of the Committee, the Scientific Assessment and Strategy Team, is working in Sioux Falls, South Dakota, to gather and analyze data related to the flood and its impacts. (Sioux Falls is the site of the U.S. Geological Survey's Earth Resources Observation Systems Data Center.)

To ensure that the Review Committee maintains close contact with your office and that the views and experience of State and local agencies are available to the Committee, we would appreciate it if you would designate a point of contact for the Committee. The Executive Director of the Committee, BG Gerald E. Galloway, will be available to discuss any aspects of the study of interest to you.

We have enclosed a copy of the preliminary mission statement for the Committee, which was provided to you in early December through the National Governor's Association. Please provide any comments on the mission statement and the name of your point of contact to BG Galloway at 730 Jackson Place, NW, Washington, D.C. 20503, or through facsimile (202-395-3744) by January 20, 1994.

Sincerely,

Signed

T.J. Glauthier
Associate Director
Natural Resources,
Energy, and Science

Enclosure

Identical Letter Sent To:

Honorable Terry E. Branstad
Governor of Iowa
Des Moines, Iowa 50319-0001

Honorable Evan Bayh III
Governor of Indiana
Indianapolis, Indiana 46204

Honorable Joan Finney
Governor of Kansas
Topeka, Kansas 66612-1590

Honorable Arne H. Carlson
Governor of Minnesota
St. Paul, Minnesota 55155

Honorable Mel Carnahan
Governor of Missouri
Jefferson City, Missouri 65102

Honorable Edward T. Schafer
Governor of North Dakota
Bismark, North Dakota 58505

Honorable Walter D. Miller
Governor of South Dakota
Pierre, South Dakota 57501

Honorable Tommy G. Thompson
Governor of Wisconsin
Madison, Wisconsin 53707

DRAFT

Honorable 1~2~

U.S. House of Representatives [OR UNITED STATES SENATE]

3~

4~

Dear Congressman [OR SENATOR]2~:

As a consequence of the disastrous Midwest floods of 1993, the Administration has established an Interagency Floodplain Management Review Committee that will operate under the direction of the Interagency Floodplain Management Task Force chaired by myself; Katie McGinty, Director of the White House Office of Environmental Policy; and Jim Lyons, Assistant Secretary of Agriculture. This Committee will undertake an intensive review to determine the major causes and consequences of the 1993 floods; evaluate the performance of existing floodplain management and related watershed management programs; and, make recommendations as to what changes in current policies, programs, and activities would most effectively achieve risk reduction, economic efficiency, and environmental enhancement in the floodplain and related watersheds. As appropriate, the Committee will identify legislative initiatives that might be proposed by the Administration. The Committee will operate with a deadline of June 1, 1994, for its final report.

Because floodplain management involves a complex intergovernmental system of Federal, State, tribal, and local responsibilities, the Committee will conduct outreach to and consultation with all levels of government and the public. Its operations will be conducted in an open environment.

The Committee will include a multi-disciplinary and interagency group of experts in fields relevant to floodplain management. The Committee will be assisted by the staff of the Council of Economic Advisors, Council on Environmental Quality, the Office of Science and Technology Policy, and the Justice Department. An element of the committee, the Scientific Assessment and Strategy Team, is working in Sioux Falls, South Dakota, to gather and analyze data related to the flood and its impacts.

The Review Committee will maintain close liaison with your committee (OR FOR CONGRESSMAN< YOUR OFFICE). The Executive Director of the study will be available, at your convenience, to discuss any aspects of the study of interest to you.

We have enclosed a copy of the preliminary mission statement for the Committee. Because of the intense interest in this review, we have decided to leave it open to comment until January 20, 1994, and would appreciate any thoughts you might have. Questions should be addressed to BG G.E Galloway, Executive Director of the Committee, at 202-395-3706.

Sincerely,

T.J. Glauthier
Associate Director
Natural Resources,
Energy, and Science

Enclosure

OFFICE OF THE
ASSISTANT SECRETARY OF THE ARMY
(CIVIL WORKS)
Room 7126, Pulaski Bldg.
20 Massachusetts Ave., N.W.
Washington, D. C. 20314-1000

FAX TO: Brian Burke DATE: 12/8/93
OFFICE: DPC Phone: 456-2995
Fax: 456-7028

SUBJECT: Levee Repair EDA

Pages to follow: 15

FROM: DR. ROBERT N. STEARNS
DEPUTY ASSISTANT SECRETARY
PROJECT MANAGEMENT

Phone: (202) 272-0126 Fax: (202) 504-4389

COMMENTS:

More than you'll ever want to know! The "guide"
and "Q's and A's" are Bob Stearns creations not
yet cleared by EDA or Corps. Draft Federal
Register Notice is from EDA - I've made a few editorial
suggestions. I also told EDA that Kathi would probably
want to see all this before making public.

What is your comfort level?
What else would you like to see?

GUIDE TO THE EDA FLOOD REPAIR PROGRAM

STEP ONE.

Following notification in the Federal Register (and through less formal mechanisms, including direct contact with state and local governments), requests for assistance are submitted to the EDA regional offices. Requests include the following information:

- Name and location of levee
- Description of damages
- Description of "critical public infrastructure" protected
- Sponsor status (requests limited to non-Federal government entities)

STEP TWO.

After all requests received, EDA makes initial screening, notifies subgroup that Corps of Engineers will inspect the site and complete a Damage Survey Report (DSR) and Cost-Benefit analysis prior to EDA notification that a formal application may be made.

STEP THREE.

Corps inspects levees and completes Damage Survey Reports and Cost-Benefit analysis. DSR's include levee maintenance status (if it is determined that some pre-flood minimal maintenance would have been required to bring levee up to Corps standards, this would not necessarily disqualify the levee from the EDA program, but the estimated cost of this maintenance would be totally a non-Federal responsibility), soundness of engineering design, and estimated cost of repair. SPONSORS MUST UNDERSTAND THAT INSPECTION OF A LEVEE AND PREPARATION OF A DSR DOES NOT GUARANTEE THAT THE LEVEE WILL BE SELECTED FOR REPAIR.

STEP FOUR.

Based on their review of Corps DSR's and Cost-Benefit analyses, sponsor's original requests for assistance, and field inspections by EDA personnel, EDA identifies the highest priority levee repairs and informs the sponsors of those levees that they may make a formal application for assistance. AN INVITATION FOR FORMAL APPLICATION DOES NOT GUARANTEE THAT A LEVEE WILL BE SELECTED FOR REPAIR.

STEP FIVE.

EDA screens all formal applications and selects levees to be repaired under this program. Before any agreements are reached, EDA ensures that sponsors are aware of alternative Federal programs that may be available and preferred by the sponsor in lieu of repair. EDA signs necessary agreements with local sponsors, and awards them 75 percent of the estimated cost of repair.

STEP SIX.

After approval of design by the Corps, local sponsor arranges to have the repair work performed. Local sponsor must have agreement with Corps on extent of Corps participation (the Corps will be reimbursed for work performed for the local sponsor, using EDA grant money). Corps, at a minimum, will inspect the levee upon completion of repair to certify that it qualifies to be classified as "active" in the Corps P.L. 84-99 program. Corps is prepared to provide technical assistance for design of repair, management of construction, and for inspections during repair. Sponsor is encouraged to ask Corps to inspect during repairs to maximize the likelihood that the repairs will lead to acceptance into the Corps P.L. 84-99 program.

STEP SEVEN.

If, after completion of repair for all levees in the initial selection, it is determined by EDA that additional levees can be repaired within the \$18 million ceiling, EDA informs additional sponsors, of their inclusion in the repair program.

STEP EIGHT.

Permanent relationship between levee sponsor and Corps of Engineers formally established in order that levee may remain in active status of Corps P.L. 84-99 program.

DEFINITION OF "CRITICAL PUBLIC INFRASTRUCTURE".

"Critical public infrastructure" includes, but is not limited to buildings and other structures (e.g. pump stations) that are used to provide public (i.e. governmental or quasi-governmental) community wide services; roads, bridges, and other transportation related facilities; waste treatment and wasted disposal sites, and recycling facilities; industrial parks, commercial centers and other facilities essential to the economic well-being of the community. As part of the EDA program, priority will be determined in part, by the potential to which repair of the levee will assist in the long-term rehabilitation of the area and directly or indirectly tend to improve opportunities for the establishment of industrial or commercial facilities, or primarily benefit members of low income families. One of the desired outcomes of this program is to give the Federal government better information as to the full extent of the levee repair requirements that are not being met by the existing Corps program. The original requests for assistance are not expected to require a significant amount of work by local sponsors, and sponsors are encouraged to make requests. It is with this understanding that the definition of "critical public infrastructure" had been made deliberately broad.

QUESTIONS ABOUT THE EDA LEVEE REPAIR PROGRAM

1. Who will decide which levees will receive assistance from the amount made available from the Economic Development Administration (EDA)?

This decision will be made by EDA. It will be based on applications from levee sponsors, field visits by EDA personnel, and Damage Survey Reports and Cost-Benefit analysis prepared by the Corps of Engineers.

2. What role, if any, will the Army Corps of Engineers (Corps) play in a) conducting the initial assessment, b) prioritizing the repair work, c) managing the construction?

Requests for assistance will be received by EDA and after an initial screening, Corps personnel will be asked to conduct an inspection of levees on the reduced list. The Corps will prepare a DSR and a Cost-Benefit analysis and submit both to EDA. EDA alone will prioritize the work and, subject to the availability of funds, award grants to local sponsors. Local sponsors may use the money to pay for the use of Corps personnel to do design and construction management. Grantees will also pay for the use of Corps personnel to conduct a final inspection of the levee to assure that it will be included in the Corps levee repair program in future events.

3. What is meant by "critical public infrastructure" which must be protected in order to receive assistance from EDA?

As explained in the "Guide to the EDA program", this term is meant to be broadly interpreted (examples are listed in the Guide). All potential grantees are encouraged to apply so that the government can have the best information as to the full extent of the problem.

4. How many levees do you anticipate being able to repair with the money made available?

There is a large variation in levee sizes and damages, so that any forecast of the number is at best a very rough estimate. If repair costs, on average, are \$400,000 (this number is consistent with data from the Corps program of levee repair), the EDA program may be available for roughly 50 levees (the \$18 million must be matched in part by local cost-sharing).

5. What authority is being used as the basis for this program? If this is an EDA program, how can the Corps be involved?

EDA's authority is _____. In order to participate in the evaluation of requests for assistance, the Corps will receive funds from EDA under _____. Once grants are awarded, the grantees will use services from the Corps (at a minimum for a final inspection, but

-2-

at the grantee's choice for more extensive involvement) by making payment in advance to the Corps. Participation by the Corps during design or construction, including final inspection, will be considered a cost of construction for the purposes of cost-sharing.

6. How long will it take to make the needed repairs?

Fairness dictates that grantees are not chosen until all requests have received and considered. The deadline for receiving requests has been established as January 10, 1994 and we cannot expect to award grants until the Spring. It is likely that the work could be completed before the end of calendar year 1994. Obviously, we will try to work as expeditiously as possible,

7. Why is it necessary to have the public sponsors of the levees participate in the Corps program in the future?

Participation in the Corps program enables the Government to have better control over the number of levees that might require repair after future flood events and assures, through the Corps inspection program, that these levees will continue to meet engineering standards and be well maintained, thus providing maximum protection in future events.

8. How will the cost-sharing requirements be met? Will a cost-sharing agreement be necessary and, if so, with whom? Will the cost-sharing requirements include the costs of processing and analysing the application and preparing the Corps Damage Survey Reports and Cost-Benefit Analyses?

It is expected that grantees will need to have two agreements. First, with EDA describing the terms and conditions of the grant; second, with the Corps to enable the Corps to provide its services to the grantee (as requested by the grantee) during design and construction. The conditions of the grant will include a five percent local cash requirement, that is, the grantee must demonstrate that in addition to any in-kind services provided (such as use of locally owned equipment) the actual cash outlays for the repair included an amount equal to five percent of construction costs.

The pre-grant award costs for inspections, report preparation, etc. will not be cost-shared. However, they are a legitimate cost of the program and will be covered by the \$18 million of available funds.

9. Is it really fair to the levee sponsors who applied for and stayed in the Corps program to allow non-program participants an opportunity for assistance?

The decision to provide \$18 million for levee repair through EDA is based on the genuine hardships created by the sheer magnitude of

-3-

the floods and the need to provide protection against future events as quickly as possible. Nonetheless, some recognition should be given to those who chose to participate actively in the Corps program, and as a result, the non-Federal share of total costs is greater for the EDA program.

10. Why are the non-Federal cost-sharing requirements higher for the EDA program than for other levee repair and flood relief programs?

As explained above (question 9), the differences in the cost-sharing requirements were established in order to recognize that other levee owners had agreed in advance to be a part of the Corps program, and had met all Corps requirements for sponsorship and maintenance.

11. Does the EDA program apply to levees in the geographic areas under the jurisdiction of the Soil Conservation Service (SCS)?

No.

12. Who will decide whether or not the damaged levees had been built and maintained according to Corps standards? If they are currently damaged, how can you tell what the pre-flood condition actually was?

The Corps will inspect the levees that have passed EDA's initial screening and prepare a Damage Survey Report. Corps personnel with extensive experience in the Corps program will be making these determinations. In some cases, the Corps will identify some minimum improvements to the levee that would constitute routine maintenance rather than repair necessary from flood damages. In these cases the cost of these improvements will be borne entirely by the non-Federal sponsor.

14. What information will EDA require from program applicants? Are application forms necessary? available?

The application process will involve two phases. During phase one, potential applicants will make a request for assistance. The required information will include the name and location of the levee, name of local sponsor, nature of the damages incurred, and a description of the critical public infrastructure protected by the levee. No formal request forms will be necessary in this phase. After an initial screening by EDA and an inspection by the Corps, certain sponsors will be invited to make formal application. The application requirements will be made known to the potential applicants at that time.

15. In some cases, levee districts have not yet been established to assume long term responsibility for maintenance and for retention in the Corps program and there will not be time to

-4-

establish such a district prior to the EDA deadline for request for assistance. Will these levees be eligible for EDA consideration?

Yes, provided that the sponsor making the request for assistance meets the EDA criterion for sponsorship as outlined in the Federal Register notice. The criteria for grant award will include the capability of the sponsor to provide the non-Federal share of the cost of repairs and the need to include the levee in the Corps levee repair program in the future. In those cases where a levee district is not yet formed to assume long term responsibility, the sponsor must indicate a willingness to assume this responsibility itself, or provide evidence that a levee district is being created.

16. Since the amount of the EDA grant will be based on an estimate of the repair costs, what will happen if the actual cost exceeds the estimated amount?

EDA grant procedures are sufficiently flexible that adjustments can be made to assure that the grant money covers 75 percent of construction costs. This applies whether the actual cost are more or less than the amount first estimated.

17. Levee sponsors whose levees are eligible for repair under the Corps of Engineers or Soil Conservation Service programs have been informed that there may be alternatives to levee repair, such as relocation out of the floodplain, that may be preferred by the local sponsor. Will these alternatives be available to potential grant recipients in the EDA program? Can the EDA funds be used to pay for these alternatives?

It is Federal policy that before any levee is repaired under any agency program, that the levee sponsor be informed of alternative to levee repair that may be available. The EDA program is, however, strictly for levee repair. Alternatives would be funded from some other source (e.g. FEMA, SCS).

DEC-03-1993 15:22

EDA UCIA

202 273 4723 P.006

DRAFT

DEPARTMENT OF COMMERCE

Economic Development Administration

[Docket No.]

**Federal Levee Repair Policy Under
Economic Development Assistance Program
for Disaster Relief Activities Under
Public Law 103-75, Chapter I and
The Memorandum From OMB Task Force on Levees
November, 1993**

**AGENCY: Economic Development Administration (EDA)
Department of Commerce**

DEC-03-1993 15:23

EDA NCIA

202 273 4723 P.007

DRAFT

-2-

ACTION: Notice of Requests for Proposals

SUMMARY: The Economic Development Administration (EDA) is announcing that it will begin receiving requests for levee repairs on December 10, 1993, in accordance with the Supplementary Notice in 58 FR 54008, October 1993, as part of its economic recovery assistance program for the Midwest Floods of 1993. Requests in accordance with criteria set forth herein for levee repairs which are needed to protect, among other things, critical public infrastructure will be received until January 10, 1994.

In carrying out this program, EDA will collaborate with the U.S. Army Corps of Engineers (Corps) to assure that the proposed levee repairs meet all appropriate Corps criteria and that future eligibility in the Corps' program can be maintained. The final decision as to whether or not a levee will be repaired under this program will be solely that of EDA.

DATES: This policy is effective immediately. The deadline for submitting requests for proposals is January 10, 1994.

DEC-03-1993 15:23

EDA DCIA

202 273 4723 P.008

DRAFT

-3-

SUPPLEMENTARY INFORMATION:**Funding Availability**

Funds up to \$18 million are available for this levee repair program. These funds, which are provided from the \$200 million for emergency expenses that was appropriated under Public Law 103-75, remain available until September 30, 1995.

It is anticipated that the funds announced herein for repairing levees may not be sufficient to repair all the levees for which requests are received. EDA will use the following criteria to select the levees to be repaired: (1) the critical nature of the infrastructure protected by the levee, (2) environmental impact, (3) past performance of the applicant regarding operation and maintenance of the existing levee, (4) the applicant's ability to properly and efficiently administer the levee rehabilitation project and to satisfactorily operate and maintain the levee in accordance with standards established by the Corps, (5) the feasibility of the project, cost and other factors considered, (6) the potential the project has for assisting in the long-term rehabilitation of the area, and (7) the extent to which the project will directly or indirectly tend to improve opportunities in the area for the establishment or expansion of industrial or commercial facilities or primarily benefit members of low-income families.

DEC-03-1993 15:23

EDA OCIA

202 273 4723 F.000

DRAFT

-4-

Grant Rates

The Federal grant rate shall not exceed 75 percent. The non-Federal share of the cost of a levee rehabilitation project for which assistance is made available by EDA shall be:

- to provide all land, easements, rights-of-way, and dredged material disposal areas necessary for the project; and
- to provide at least 25 percent of the costs of construction of the project of which at least 5 percent shall be paid in cash (as opposed to in-kind services).

Funding Instrument

Funds will be available as grants in accordance with the requirements of Title I, Title IV, or Title IX of the Public Works and Economic Development Act of 1965, as amended (Public Law 89-136; 42 U.S.C. 3121 et. seq.) (PWEDA). The appropriate title for grant application and award will be determined by EDA based on the nature of the project and the eligibility of the area.

DEC-03-1993 15:23

EDA OCIA

202 273 4723 P.010

DRAFT

-5-

Eligible Applicants

Eligible applicants include any of the states or political subdivisions thereof, including municipalities and quasi-public corporations and authorities, Indian tribes, and nonprofit corporations representing an EDA designated area or part thereof located in areas affected by the Midwest Floods of 1993.

Eligibility Criteria

Levees which are within the Corps' geographic area of responsibility (i.e., contributing drainage areas of 400 square miles or greater) that were ineligible to receive assistance because of the lack of participation by a public sponsor prior to the Midwest Floods of 1993, will be eligible for assistance from EDA, provided that:

- it is determined that the levee protects "critical" public infrastructure;
- a public sponsor is identified that can demonstrate sufficient financial capability to comply with the requirements of this section;

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- the levee rehabilitation program otherwise meets the requirements established by the Corps for design, operation, maintenance;
- it is demonstrated that the benefits derived from repair or reconstruction of the levee will exceed the repair costs; and
- the public sponsor agrees to include its levee in the Corps' program and enters into a written agreement acknowledging that future Federal assistance will be conditional upon the public sponsor's continued participation in the program (future assistance will be forthcoming under the Corps' P.L. 84-99 Emergency program).
- the proposed work consists primarily and essentially of repairs to an existing levee.

Other Information

To establish the merits of project proposals, interested parties should contact the EDA Office for the area (see listing below) for a Preapplication, Form ED-101P (SF-424). Requests for assistance shall be submitted directly to the EDA Regional Office

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that serves the area (see listing below). EDA, working in conjunction and collaboration with the Corps, will screen proposals to determine whether they can meet the criteria established above before inviting applications.

Following the review of proposals, EDA will invite those entities whose projects are selected for consideration to submit full applications.

*Except as modified herein, application procedures, competitive selection criteria and post approval project implementation information for the applicable assistance are described in the Federal Register of January 11, 1993, (58 FR 3800) announcing EDA's Notice of Availability of Funds for FY 1993.

FOR FURTHER INFORMATION:

Contact the appropriate Economic Development Representative or EDA Regional Office listed below:

Denver Regional Office (ND, NE, SD, IA, MO, KS):

Economic Development Administration

Denver Regional Office, Room 670

1244 Speer Boulevard, Denver, CO 80204

Telephone: (303) 844-4714

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Denver Region Economic Development Representative (EDR):**North Dakota****Economic Development Representative: Cornelius Grant****Address: Disaster Field Office****P.O. Box 1911, Bismarck, ND 58501****Telephone: (701) 250-4321****South Dakota and Nebraska****Economic Development Representative: Warren Albertson****Address: Federal Building, Room 219****Pierre, SD 57501****Telephone: (605) 224-8280****Iowa****Economic Development Representative: Robert Cecil****Address: Federal Building, Room 593A,****210 Walnut Street, Des Moines, IA 50309****Telephone: (515) 284-4746****Missouri****Economic Development Representative: Forrest Koch****Address: Robert A. Young Building, Room 8.308H****1222 Spruce Street, St. Louis, MO 63103****Telephone: (314) 539-2321**

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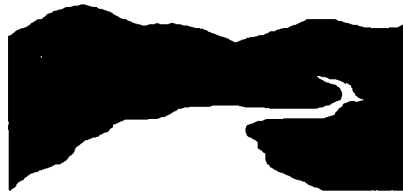
EDA OCIA

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-9-

Kansas**Economic Development Representative: John Zender****Address: Room 632, 1244 Speer Boulevard****Denver, CO 80204****Telephone: (303) 844-4902****Chicago Regional Office (WI, MN, IL):****Economic Development Administration****Chicago Regional Office****Suite 855, 111 North Canal Street****Chicago, IL 60606-7204****Telephone: (312) 353-7706****Dated December , 1993****Wilbur F. Hawkins****Acting Assistant Secretary****for Economic Development**



American Rivers

801 PENNSYLVANIA AVE., S.E.
SUITE 400
WASHINGTON, D.C. 20003
(202) 547-6900
FAX (202) 543-6142

To: Brian Burke

Date: 11-19-93

From: Scott Faber - Amer. Rivers

Page 1 of 4

Please forward to Brian Burke.

M E M O R A N D U M

To: Brian Burke, Domestic Policy Council
From: Scott Faber, American Rivers
Re: Federal assistance for ineligible levees
Date: November 19, 1993

Brian: As we discussed, the Office of Management and Budget has tentatively identified two options to channel federal funding to repair ineligible levees. The two options are:

- o conduct a rulemaking to change or repeal rules established in 1986 that require participation in the Corps' rehabilitation program. The Corps would presumably initiate this change.

- o drop current administration guidance policy that prevents FEMA from spending disaster relief to repair levees that are not the Corps' rehabilitation program. Witt would presumably initiate this change. This would make relocation funding available for levee repairs, and would contradict current FEMA regulations (44 CFR sec. 206.226).

This appears to contradict other administration efforts, and may ultimately allow funding for relocation to be diverted for levee repairs. In general, we are concerned that this will create disincentives for non-structural solutions. The following is a letter we sent to Panetta.

American Rivers * Environmental Defense Fund * Friends United for
a Safe Environment * Iowa Natural Heritage Foundation * Louisiana
Environmental Action Network * The Minnesota Project *
Mississippi River Revival * Mississippi River Task Force *
Missouri Coalition for the Environment * National Wildlife
Federation * Quad City Conservation Alliance * Sierra Club,
Midwest Office * Sports Fishing Institute

November 18, 1993

The Honorable Leon E. Panetta
Director
Office of Management and Budget
The White House
Washington, D.C. 20500

Dear Director Panetta:

The undersigned conservation organizations urge you to oppose efforts to weaken the eligibility requirements for the levee rehabilitation program run by the U.S. Army Corps of Engineers. In July 1986, the Corps established nationwide standards of eligibility for owners of levees who seek Federal assistance for the repair of flood control structures damaged by floods. Those participating in the program have met the eligibility requirements, including adherence to a strict operations and maintenance program which ensures the effectiveness of the structures.

Changing these standards to allow ineligible levee owners to receive Federal assistance would not only be unfair to levee owners who have participated in the program, but would also remove incentives to properly construct and maintain levees in the future. Such changes may also add hundreds of millions of dollars to the cost of the Midwest flood recovery effort. The Corps' projected spending, at \$250 million, already exceeds the funding the agency received in the August supplemental.

We are also concerned that rebuilding ineligible levees would violate the Administration's August 23 policy memorandum to the Corps and other federal agencies requiring consideration of nonstructural alternatives that could reduce future potential flood damages, lower long-term costs to the federal government and protect natural resources. Instead of allowing the river to fan out and take advantage of natural flood control functions, we have spent billions of dollars to force the river into ever-tighter channels, raising flood crests and creating a false sense of security that has encouraged floodplain development.

November 18, 1993
Page Two

Now is our opportunity to reverse more than a century of faulty flood control policy. We urge you to oppose efforts to weaken the eligibility requirements for the levee rehabilitation program.

Sincerely,

Scott Faber
American Rivers

Tim Searchinger
Environmental Defense Fund

Paul Schultz
Friends United for a Safe
Environment

Duane Sand
Iowa Natural Heritage
Foundation

Marylee Orr
Louisiana Environmental
Action Network

John Lamb
The Minnesota Project

Michael Brieghtbach
Mississippi River Revival

Darryl Malek-Wiley
Mississippi River Task
Force

Roger Pryor
Missouri Coalition for the
Environment

David Conrad
National Wildlife
Federation

Bill Redding
Sierra Club, Midwest Office

Mark Beorkrem
Quad City Conservation
Alliance

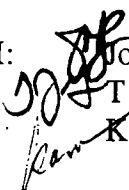
Norville Prosser
Sports Fishing Institute

THE WHITE HOUSE

WASHINGTON

November 24, 1993

TO: G. Edward Dickey, Acting Assistant Secretary of the Army (Civil Works)
Gary Foley, Acting Assistant Administrator for Research and Development,
U.S. Environmental Protection Agency
James R. Lyons, Assistant Secretary of Agriculture for Natural Resources
and Environment
James Lee Witt, Director, Federal Emergency Management Agency

FROM:  John H. Gibbons, Assistant to the President for Science & Technology
T.J. Glauthier, Associate Director, Office of Management and Budget
Katie McGinty, Director, White House Office of Environmental Policy

SUBJECT: Directive on the Establishment of a Scientific Assessment and Strategy Team in
Response to Flooding in the Mississippi River Basin

The purpose of this directive is to establish an interagency Scientific Assessment and Strategy Team (SAST) responsible for providing scientific advice and assistance to officials responsible for making decisions with respect to flood recovery in the upper Mississippi River basin. The team will develop and provide information to support the decision-making process regarding both nonstructural and structural approaches to flood control.

A key responsibility of the SAST will be to organize the information in existing databases to aid in the near-term and long-term decision-making process. Specifically, the team shall identify broad areas of the major floodplains of the upper Mississippi River and the lower Missouri River that, from a scientific perspective, are most suitable for alternative flood control approaches including wetland restoration. We anticipate that this information will be helpful to states and communities, as well as federal agencies, in making decisions with respect to flood recovery and the longer-term protection and cost-effective use of resources in the Mississippi River basin.

This effort will be coordinated by Mark Schaefer of the White House Office of Science and Technology Policy (OSTP) and Mollie Beattie of the Department of the Interior with the Assistance of Michele Altemus. The team will carry out its activities at the U.S. Geological Survey's Earth Resources Observing System (EROS) Data Center (EDC) in Sioux Falls, South Dakota, and will be directed by John Kelmelis of the USGS.

The SAST will be comprised of scientists and engineers with a broad range of expertise related to river basin management, flood control, and ecosystem management. At a minimum, the following departments and agencies will be represented on the team: Department of Agriculture, Army Corps of Engineers, Federal Emergency Management Agency, Department of the Interior, and the Environmental Protection Agency. Each of these agencies shall nominate individuals to serve on the SAST for a period of approximately eight weeks. Nominees must have a strong scientific background and be familiar with geographic information systems. The required skill mix for the team is attached. Please fax the nominations to Mark Schaefer of the Office of Science and Technology Policy no later than Friday, December 3 (telephone: 202-456-6202; fax: 202-395-1571).

Resources to support this effort will be provided through existing agency budgets supplemented by funds dedicated to flood recovery.

SCIENTIFIC ASSESSMENT AND STRATEGY TEAM (SAST)*

***Note:** All team members should have some experience in remote sensing, geographic information systems (GIS), or modeling

Team Leader [1]

Center Liaison [1]

Biologists [3] (ecologist, aquatic/fisheries, programs/policies)

Cartographers [2] (wetlands mapping, topographic)

Engineers [2] (structural and nonstructural flood control)

Hydrologists [3] (flood flow modeling, uplands modeling, water quality)

Geologist [1] (Upper Midwest surficial geology/geomorphology)

Soil Scientist [1] (general, hydric soils)

Agricultural Scientist [1] (floodplain agriculture/resource valuation)

TOTAL: 15 people

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Mike Espy
Secretary of
Agriculture

MIDWEST FLOOD RECOVERY

INTERAGENCY TASK FORCE

James L. Witt
Director, Federal
Emergency Management
Agency



FLOODPLAIN MANAGEMENT • COMMUNITY REDEVELOPMENT • ENVIRONMENT • HEALTH • AGRICULTURE PRODUCTION • TRANSPORTATION • HOUSING

Steering Committee

Kathl Way
Special Assistant to the President for
Domestic Policy

Oleta Fitzgerald
Director, Intergovernmental Affairs
Department of Agriculture

Richard Krimm
Associate Director, Response and
Recovery Directorate
Federal Emergency Management Agency

Donovan Kelly (703) 648-4460
U.S. Geological Survey

For release: UPON RECEIPT (Mailed Dec. 6, 1993)

(Note to Editors: During the Mississippi River floods, hundreds of water quantity and quality measurements were made by U.S. Geological Survey engineers, scientists and technicians in the nine-state flood region. Some of these results will be described Monday, Dec. 6, at 8:30 a.m., in a symposium and a poster session at 1:30 p.m., both in the San Francisco Civic Auditorium at the upcoming meeting of the American Geophysical Union in San Francisco, Calif., Dec. 6-10, 1993. The following fact sheet summarizes the investigations.)

Committee Chairs

Kathleen McNulty
Deputy Assistant to the President, Office
of Environmental Policy

Christopher Colby
Associate Director of Economics
Government
Office of Management and Budget

Andrew M. Cuomo
Assistant Secretary for Community
Planning and Development
Department of Housing and Urban
Development

Jim Lyons
Assistant Secretary for Natural Resources
and Environment
Department of Agriculture

Dr. Frank Young
Director, Office of Emergency
Preparedness
Public Health Service

T. J. Glavinier
Associate Director, Natural Resources,
Energy and Science
Office of Management and Budget

Sylvia K. Lowman
Associate Deputy Administrator
Environmental Protection Agency

Bob J. Nash
Under Secretary for Small Community
and Rural Development
Department of Agriculture

Barbara Chow
Special Assistant to the President, Office
of Legislative Affairs

Martin Shaddock
Director, Office of Congressional and
Governmental Affairs
Federal Emergency Management Agency

Morris Goodman
Director, Office of Emergency Information
and Public Affairs
Federal Emergency Management Agency

Lisa Mortimer
White House Office of Media Affairs

Jody Jaeger
Confidential Assistant to the Director
Department of Agriculture

Bob Stearns
Deputy Assistant Secretary, (Project
Management) Army (Civil Works)

Randy Weber
Acting Administrator, Agriculture
and Conservation Service
Department of Agriculture

MISSISSIPPI RIVER FLOOD OF 1993:

WATER FACTS

* As the nation's principal water-information agency, the USGS works with more than 1,000 cooperators to conduct scientific studies, and collects surface- and ground-water data at more than 45,000 sites across the nation, including 796 surface-water stations in the nine states that were affected by the flood.

* New all-time-high streamflow records were set at 42 USGS stream-gaging stations on 33 streams in 7 states. However, water levels would have been higher in many locations if not for the large volume of runoff retained in flood-control reservoirs. For example, analyses of flood flow in the Kansas River and the lower Missouri River indicate that reservoirs in those basins significantly reduced flooding. In fact, the peak flood discharges associated with a similar flood that occurred in 1931, before many of the reservoirs were built, were higher than the peak flows measured on these streams during the 1993 flood.

* Some of the new flow records on other streams are twice, or more than twice, the previous record. For example, the new record on the Raccoon River at Van Meter, Iowa, is 45.3 billion gallons per day (bgd), and breaks the previous record of 26.6 bgd, set in 1947. And the Des Moines River below the Raccoon River at Des Moines set a new flow record of 45.3 bgd, breaking the previous record of 37.7 bgd set in 1984.

* New all-time-high streamflow records were measured on streams in Minnesota, Iowa, South Dakota, Nebraska, Kansas, Missouri and Wisconsin, with many sites experiencing flows that exceeded the 100-year recurrence interval. (A flow with a 100-year recurrence interval is one that would only be exceeded on the long-term average of one year out of every 100. If a location has a 100-year flood it does not mean that it is safe from another flood for 99 years.)

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* Six new streamflow records were set on the main stem of the Mississippi River and seven were set on the Missouri River. Flow of the Mississippi at St. Louis was above flood stage for more than 10 weeks, exceeding all previous records set at the USGS stream gaging station during the last 59 years of streamflow monitoring.

* At Miller City, Ill., USGS hydrologists collected flow, depth, and related hydrological data at the site of a failed agricultural levee. The levee failure resulted in the cutting of a side channel that bypassed 20 miles of a meander bend in the Mississippi River.

* Hydrologists at the USGS found surprisingly high concentrations of agricultural chemicals in the Mississippi River and some of its major tributaries, during and in the aftermath of the flooding. Despite the much larger volumes of flood water, concentrations of herbicides at sampling sites on the Mississippi, Illinois, Missouri, and Ohio Rivers were at, or near, the maximum levels detected in a previous study of the river during lower flows in 1991 and 1992.

* Loads, or volumes, of chemicals carried by the Mississippi River and some of its major tributaries were also high, with daily loads of some chemicals up by almost 50 percent over previous measurements. On several days when the flooding was at its peak, the USGS estimated that the Mississippi River at Thebes, Ill., was carrying more than 12,000 pounds of atrazine per day.

* Nitrate concentrations were similar to levels measured in previous years. Concentrations were less than 4 parts per million (ppm), well below the nitrate drinking water standard of 10 ppm.

* Channel erosion at bridge crossings is the leading cause of bridge failures in the United States. As a result of the flood, many bridges in the midwestern states are threatened. In cooperation with state transportation departments in Iowa, Illinois and Missouri, USGS hydrologists and engineers measured channel erosion at several bridges on the Mississippi River during and after the flood.

* Bridge scour is measured to determine the impact of channel erosion on bridge safety and to predict the impact of future scouring. Underwater channel changes, flow velocities, sediment characteristics and bridge geometry are measured to develop models of channel responses to scouring at bridges.

* Flooding at the Highway 51 bridge over the Mississippi at Chester, Ill., deepened the channel, or caused it to be scoured out more than 25 feet, at the peak of the flood.

* The USGS worked with the National Weather Service to compile precipitation data from 10 NWS weather stations in the flood-affected states. The data indicate that a wet spring followed by record-breaking rains in June and July produced more than a year's worth of precipitation in seven months.

* The USGS is preparing a series of reports that document significant characteristics of the 1993 floods in the upper Mississippi River basin. The series includes flood discharges, precipitation, transport of agricultural chemicals, scour at selected bridges, suspended-sediment loads and concentrations at many sites, and effects of reservoirs on flood magnitude.

* * * USGS * * *

** TOTAL PAGE.003 **



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
THE ADMINISTRATOR

Ms. Kathryn Way
Special Assistant to the President for Domestic Policy
Old Executive Office Building, Room 218
The White House
Washington, DC 20500

Dear Ms. Way:

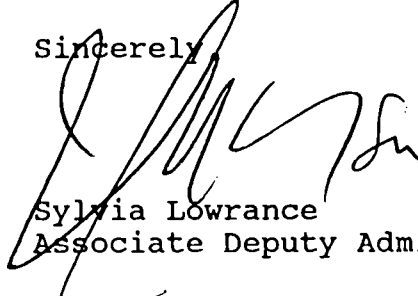
The purpose of this note is to report our progress in determining the scope of issues, meeting logistics, and how the Environmental and Health Safety (EHS) Committee will interact with the Steering Committee for Long-Term Recovery. We met on November 1, 1993 with members of our staff to discuss these issues.

Please refer to the following attachments for background information on the status of preparation for EHS Committee meetings; and on issues previously addressed by former committees (Water Supply and Treatment, Environmental, Health and Medical, Education/Social Services):

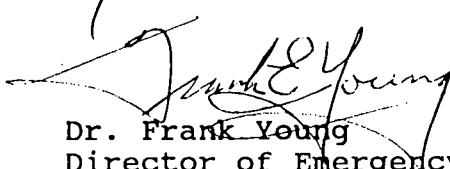
- Summary of the Preparatory Meeting for Environmental and Health Safety Committee meeting held November 1, 1993 (see Attachment A)
- The status report of the Medical and Health Committee dated October 14, 1993 (see Attachment B)
- The status report of the Environmental Committee dated October 7, 1993 (see Attachment C)
- Summary of the Environmental Committee meeting on October 12, 1993 (see Attachment D)

We are scheduling our first meeting of the Environmental and Health Safety Committee for November 10, 1993. EPA has offered to provide meeting support for the EHS Committee, including meeting summaries similar to that attached for the EHS Preparatory Meeting (held November 1). Meeting summaries will highlight issues that need to be raised to the Steering Committee for action. A notice of the November 10, 1993 meeting and agenda will soon be forwarded for your information.

Sincerely,



Sylvia Lowrance
Associate Deputy Administrator



Dr. Frank Young
Director of Emergency Preparedness
National Disaster Medical Systems

Enclosures

ATTACHMENT A
**PREPARATORY MEETING FOR
ENVIRONMENTAL AND HEALTH SAFETY (EHS) COMMITTEE**
Meeting Summary
Monday, November 1, 1993

INTRODUCTION

This meeting was held to prepare for future activities of the Environmental and Health Safety (EHS) Committee. The EHS Committee is the result of the consolidation of four committees on the Long-Term Recovery Task Force. The Environmental, Health and Medical, Water Supply and Treatment, and Education/Social Services Committees are being collapsed to more efficiently address the remaining cross-cutting recovery issues resulting from the floods in the Midwest.

Sylvia Lowrance, EPA Associate Deputy Administrator, and Frank Young, Director of Emergency Preparedness/National Disaster Medical Systems for Public Health Service (PHS), convened the meeting. The agenda was developed primarily to define the expected roles of the EHS Committee. Information dissemination, long-term recovery issues (primarily combined from its previous committees), and meeting logistics were addressed. Agenda items for the first meeting of the EHS Committee were also discussed.

MAJOR OUTCOMES

- The EHS Committee role was defined to address issues in the following areas: water; waste (including Superfund sites); vector control; disease surveillance; social services/education; and environmental restoration/relocation.
- EHS Committee membership will include those who were previously members of Environmental, Health and Medical, Water Supply and Treatment, and the Education/Social Services Committees. The membership will be reviewed to ensure that appropriate offices and levels of participation are included from each relevant agency.
- The first EHS Committee meeting is scheduled for November 10, 1993. EPA will provide meeting support, including meeting summaries similar to those provided for the former Environmental Committee.
- A meeting is being scheduled for November 15 in the Midwest to present to state environmental and health directors the groundwater and potable water assessment and sampling proposal.

EHS Committee Issues for Steering Committee Action

- The groundwater/potable water assessment for private wells sampling proposal will be sent to the Steering Committee to identify funding resources after the November 15th meeting with states.

Agenda Item 1: Define Expected Role of the Committee

Discussion

The role of the Environmental and Health Safety (EHS) Committee is based on a consolidation of the roles of the Environmental; Health and Medical; Water Supply/Treatment; and Education/Social Services Committees. Specifically, the EHS Committee will:

- **Identify Issues.** The EHS Committee issues are defined by the cross-cutting flood recovery issues. These issues include: water; waste (including Superfund sites); vector control; disease surveillance; social services/education; and environmental restoration/relocation.
- **Develop and Disseminate Information.** EPA will provide meeting agenda and meeting summaries for the EHS Committee. EPA will utilize the same meeting summary format as was used for the Environmental Committee.
- **Interact With the Steering Committee.** Since the Steering Committee will meet on a regular basis, the EHS Committee meeting summaries will be used as a means to interact with the them. The summaries will provide an additional section to identify issues to be acted on by the Steering Committee (see text box at beginning of meeting summary). This way, all issues will be directed towards closure.
- **Designate Committee Members and Identify Resources.** EHS Committee membership will include previous members from the Environmental, Health and Medical, Water Supply and Treatment, and the Education/Social Services Committees. There will also be designated members from the Department of Housing and Urban Development (HUD), the Federal Emergency Management Agency (FEMA) and the National Institute for Environmental Health Sciences (NIEHS).
- **Implement and Oversee Actions.** In order to bring issues to resolution, the EHS Committee will track issues and develop work groups for specific tasks as necessary. For example, a work group was created for groundwater and private well issues (see Agenda Item 3: Groundwater/Potable Water Assessment for Private Wells Sampling Proposal).

Follow-Up Action Items

- Kevin Tonat and Kathy Jones will merge the membership from the previous committees and ensure designees are invited from HUD and FEMA.

Agenda Item 2: Other Areas for Discussion

Discussion

Several areas of discussion were brought to the table for resolution. Topics include:

- The EHS Committee will need to prepare for "secondary response/recovery" of flood-related issues that occur in winter and spring. It was agreed that this topic will require a work group and should be pursued at the November 10th EHS Committee meeting.
- The EHS Committee will undoubtedly receive press and legislative inquiries. It was agreed that coordination must take place prior to response when an issue is broader than an individual agency's authority. It was further agreed that appropriate inquiries should be brought to the attention of the Steering Committee. This will also serve to coordinate with the Congressional and Communications Committee.
- It was decided that the EHS Committee will meet once a month.
- Because field input is critical to the decision making process, meeting participants agreed that: 1) through EPA and HHS internal flood-related committees, agencies will continue to coordinate between Headquarters and regional staff, and 2) regional representatives from involved agencies will be encouraged to continue to communicate among themselves.

Follow-Up Action Items

- The EHS Committee agenda will address the preparation for "secondary response/recovery" of flood-related issues that are forthcoming.
- The EHS Committee will seek concurrence from other involved agencies or the Steering Committee prior to responding to press and legislative inquiries as time allows.

Agenda Item 3: Groundwater/Potable Water Assessment for Private Wells Sampling Proposal

Discussion

A meeting is being scheduled for November 15 in the Midwest to present the groundwater/potable water assessment for private wells sampling proposal to states in order to reach consensus and ensure that all state needs are being met. This is one step in the process of consensus building. The next step is providing the proposal to the EHS Committee, the Steering Committee, and finally to FEMA for their consideration for funding resources.

Follow-Up Action Items

- Kevin Tonat and Jim Staves will consult on meeting logistics for the November 15 groundwater/private well sampling proposal meeting with states.

**PREPARATORY MEETING FOR
ENVIRONMENTAL AND HEALTH SAFETY COMMITTEE**

**List of Attendees
November 1, 1993**

<u>NAME</u>	<u>TELEPHONE</u>	<u>FAX</u>
Kathy Jones, EPA/CEPPO	202-260-8353	202-260-0927
Sylvia Lowrance, EPA	202-260-7960	202-260-3684
Jim Makris, EPA/CEPPO	202-260-8600	202-260-0927
Kevin Tonat, HHS/PHS	301-443-1167	301-443-5146
Dr. Frank Young, HHS/PHS	301-443-1167	301-443-5146

DATA LIMITATIONS

The tables are based on the latest agency data on obligations¹. They tally direct Federal obligations, but exclude other Federal resources that are related indirectly to disasters. For example, Federal income maintenance programs such as unemployment compensation to those who lost jobs due to the disasters are not in this report. Changes to Federal tax liabilities such as refunds for losses claimed against 1992 or 1993 taxes are not covered either. The totals shown include gross loan levels as opposed to loan subsidies, which would normally be scored in the budget (loan subsidies are also tracked in the database). This presentation of loan levels is consistent with the original tables on the disasters. Lastly, a few of the agencies could not break out some program obligations by state. Examples include the USDA's FmHA loan program, the Commerce EDA program and the Department of Education's Impact Aid and Student Financial Assistance. The data are preliminary and, in some cases, incomplete. The next update should show some improvements.

¹ Includes some outlays for which obligations have not previously been recorded plus outlay "precursors" such as orders placed, contracts awarded, services received and similar transactions that require outlays during the same or future period.

Major Disaster Tracking
Disaster: 1993 Midwest Floods
(in millions of dollars)
Obligations by State

	Iowa	
	Cumulative Through 9/30/93	Obligations Through 9/30/94
Agency/Program		
USDA:		
Extension Service.....	0.6	0.6
ASCS:		
Emergency conservation programs.....	—	606.0
Salaries & Expenses.....	—	2.8
Soil Conservation Service.....	2.0	16.0
Farmer's Home Administration:		
ACIF Loans 2.....	—	—
Subsidy BA 2.....	—	—
Very Low-Income Housing Repairs.....	—	—
RHIF Loans 2.....	—	—
Subsidy BA 2.....	—	—
Rural Development Administration:		
Business & Industry Loan Guarantees 2.....	6.7	6.7
Subsidy BA 2.....	0.4	0.4
Emergency Water Grants.....	—	—
Fed. Crop Ins. Indemnity Program.....	129.9	268.1
Commodity Credit Corporation Fund.....	8.4	213.2
CCC, change pro-rate from 50.04 to 100%.....	—	124.8
Food Stamp Program 3.....	1.8	—
Commodity Support.....	0.2	—
Gross Subtotal	150.0	1,238.6
Less Subsidy BA	(0.4)	(0.4)
Net USDA Resource Total	149.6	1,238.2
Commerce:		
EDA (Emergency Relief) 2.....	0.8	—
NOAA Ops, Research & Facilities.....	—	—
Net Commerce Resource Total	0.8	—
Education 2		
Impact Aid assist loc schools (cont)	—	—
Student Financ. Assist.: Pell grants + Campus Based	—	—
Net Education Resource Total	—	—
Health and Human Services		
Public Health emergency fund.....	—	22.8
Net HHS Resource Total	—	22.8
HUD:		
CDBG 2.....	17.1	43.1
HOME.....	11.4	11.4
Net HUD Resource Total	28.4	54.4
Interior:		
USGS Surveys, Invest. & Research.....	0.3	0.3
Fish and Wildlife Service Construction.....	—	0.2
National Park Service Construction.....	—	0.3
NPS Historic Preservation Fund.....	—	0.5
Bureau of Indian Affairs Pgm Op.....	—	—
Net Interior Resource Total	0.3	1.3
Labor:		
Job Training Partnership Act.....	15.0	15.0
Net Labor Resource Total	15.0	15.0

Major Disaster Tracking
Disaster: 1993 Midwest Floods
(in millions of dollars)
Obligations by State

<u>Agency/Program</u>	<u>Iowa</u>	
	<u>Cumulative Through 9/30/93</u>	<u>Obligations Through 9/30/94</u>
Transportation		
Federal-aid hwy's (emergency relief).....	5.2	16.7
Local Rail Freight Assist (cont).....	0.9	5.3
United States Coast Guard.....	=	=
Net Transportation Resource Total	6.1	22.0
Corps of Engineers		
Operations & Maintenance.....	0.5	25.5
Flood control and coastal emergencies.....	9.1	29.6
Net Corps Resource Total	9.6	55.1
EPA		
Abatement, control and compliance	—	3.9
Program and research operations 2.....	—	—
Leaking underground storage tanks	—	1.2
Oil spill response	=	=
Net EPA Resource Total	—	5.1
GSA		
Federal Buildings Fund, Public Buildings Service.....	0.1	0.1
Net GSA Resource Total	0.1	0.1
NASA		
R&D (Reconnaissance).....	=	=
Net NASA Resource Total	—	—
SBA		
Administrative expenses.....	5.6	11.2
Disaster loan program loan level.....	57.6	178.1
Subsidy BA	11.8	39.5
Gross Subtotal	75.0	228.8
Less Subsidy BA	(11.8)	(39.5)
Net SBA Resource Total	63.2	189.3
OIA's		
Commission on Nat. & Comm. Service		
Emergency Relief Services.....	0.8	=
Net Comm. Service Resource Total	0.8	—
FEMA		
Public Assistance 4.....	74.6	118.4
Individual Assistance.....	—	—
Hazard Mitigation.....	—	—
Administration/Other.....	=	=
Net FEMA Resource Total	74.6	118.4
Legal Services Corporation		
Legal Services Corporation.....	=	=
Net LSC Resource Total	—	—
Resource Totals	348.5	1,721.7

Notes:

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Major Disaster Tracking
Disaster: 1993 Midwest Floods
(in millions of dollars)
Obligations by State

Agency/Program	Illinois	
	Cumulative Through 9/30/93	Obligations Through 9/30/94
USDA:		
Extension Service.....	0.2	0.2
ASCS:		
Emergency conservation programs.....	—	3.8
Salaries & Expenses.....	—	1.0
Soil Conservation Service.....	2.0	6.0
Farmer's Home Administration:		
ACIF Loans 2.....	—	—
Subsidy BA 2.....	—	—
Very Low-Income Housing Repairs.....	0.1	0.1
RHIF Loans 2.....	—	—
Subsidy BA 2.....	—	—
Rural Development Administration:		
Business & Industry Loan Guarantees 2.....	—	—
Subsidy BA 2.....	—	—
Emergency Water Grants.....	—	—
Fed. Crop Ins. Indemnity Program.....	—	—
Commodity Credit Corporation Fund.....	7.2	101.9
CCC, change pro-rate from 50.04 to 100%.....	—	57.8
Food Stamp Program 3.....	1.8	—
Commodity Support.....	0.5	—
Gross Subtotal	11.8	170.8
Less Subsidy BA	—	—
Net USDA Resource Total	11.8	170.8
Commerce:		
EDA (Emergency Relief) 2.....	0.4	—
NOAA Ops, Research & Facilities.....	—	—
Net Commerce Resource Total	0.4	—
Education 2		
Impact Aid assist loc schools (cont)	—	—
Student Financ. Assist.: Pell grants + Campus Based	—	—
Net Education Resource Total	—	—
Health and Human Services		
Public Health emergency fund.....	—	7.2
Net HHS Resource Total	—	7.2
HUD:		
CDBG 2.....	16.3	35.9
HOME.....	10.8	10.8
Net HUD Resource Total	27.1	46.7
Interior:		
USGS Surveys, Invest. & Research.....	0.3	0.3
Fish and Wildlife Service Construction.....	—	10.9
National Park Service Construction.....	—	—
NPS Historic Preservation Fund.....	0.5	0.5
Bureau of Indian Affairs Pgm Op.....	—	—
Net Interior Resource Total	0.8	11.7
Labor:		
Job Training Partnership Act.....	10.0	10.0
Net Labor Resource Total	10.0	10.0

Major Disaster Tracking
Disaster: 1993 Midwest Floods
(in millions of dollars)
Obligations by State

<u>Agency/Program</u>	<u>Illinois</u>	
	<u>Cumulative Through 9/30/93</u>	<u>Obligations Through 9/30/94</u>
Transportation		
Federal-aid hwy (emergency relief).....	1.5	3.1
Local Rail Freight Assist (cont).....	—	0.6
United States Coast Guard.....	—	—
Net Transportation Resource Total	1.5	3.7
Corps of Engineers		
Operations & Maintenance.....	1.1	2.1
Flood control and coastal emergencies.....	14.7	37.0
Net Corps Resource Total	15.8	39.1
EPA		
Abatement, control and compliance	—	3.4
Program and research operations 2.....	—	—
Leaking underground storage tanks	—	1.4
Oil spill response	—	—
Net EPA Resource Total	—	4.8
GSA		
Federal Buildings Fund, Public Buildings Service.....	0.1	0.1
Net GSA Resource Total	0.1	0.1
NASA		
R&D (Reconnaissance).....	—	—
Net NASA Resource Total	—	—
SBA		
Administrative expenses.....	6.2	8.3
Disaster loan program loan level.....	61.6	82.5
Subsidy BA	12.7	17.5
Gross Subtotal	80.5	108.3
Less Subsidy BA	(12.7)	(17.5)
Net SBA Resource Total	67.8	90.8
OIA's		
Commission on Nat. & Comm. Service		
Emergency Relief Services.....	0.3	—
Net Comm. Service Resource Total	0.3	—
FEMA		
Public Assistance 4.....	44.6	153.3
Individual Assistance.....	—	—
Hazard Mitigation.....	—	—
Administration/Other.....	—	—
Net FEMA Resource Total	44.6	153.3
Legal Services Corporation		
Legal Services Corporation.....	—	—
Net LSC Resource Total	—	—
Resource Totals	180.2	538.2

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Major Disaster Tracking
Disaster: 1993 Midwest Floods
(in millions of dollars)
Obligations by State

<u>Agency/Program</u>	<u>Kansas</u>	
	<u>Cumulative Obligations</u> <u>Through</u> <u>Through</u> <u>9/30/93</u> <u>9/30/94</u>	
USDA:		
Extension Service.....	0.3	0.3
ASCS:		
Emergency conservation programs.....	—	5.8
Salaries & Expenses.....	—	0.8
Soil Conservation Service.....	—	6.0
Farmer's Home Administration:		
ACIF Loans 2.....	—	—
Subsidy BA 2.....	—	—
Very Low-Income Housing Repairs.....	—	—
RHIF Loans 2.....	—	—
Subsidy BA 2.....	—	—
Rural Development Administration:		
Business & Industry Loan Guarantees 2.....	1.2	1.2
Subsidy BA 2.....	—	—
Emergency Water Grants.....	—	—
Fed. Crop Ins. Indemnity Program.....	—	—
Commodity Credit Corporation Fund.....	12.0	76.6
CCC, change pro-rate from 50.04 to 100%.....	—	39.4
Food Stamp Program 3.....	—	—
Commodity Support.....	—	—
Gross Subtotal	13.5	130.1
Less Subsidy BA	—	—
Net USDA Resource Total	13.5	130.1
Commerce:		
EDA (Emergency Relief) 2.....	0.5	—
NOAA Ops, Research & Facilities.....	—	—
Net Commerce Resource Total	0.5	—
Education 2		
Impact Aid assist loc schools (cont)	—	—
Student Financ. Assist.: Pell grants + Campus Based	—	—
Net Education Resource Total	—	—
Health and Human Services		
Public Health emergency fund.....	—	4.2
Net HHS Resource Total	—	4.2
HUD:		
CDBG 2.....	5.1	18.8
HOME.....	3.4	3.4
Net HUD Resource Total	8.5	22.2
Interior:		
USGS Surveys, Invest. & Research.....	0.2	0.2
Fish and Wildlife Service Construction.....	—	0.7
National Park Service Construction.....	—	0.1
NPS Historic Preservation Fund.....	—	0.1
Bureau of Indian Affairs Pgm Op.....	—	—
Net Interior Resource Total	0.2	1.1
Labor:		
Job Training Partnership Act.....	10.0	10.0
Net Labor Resource Total	10.0	10.0

Major Disaster Tracking
Disaster: 1993 Midwest Floods
(in millions of dollars)
Obligations by State

Agency/Program	Kansas	
	Cumulative Obligations Through 9/30/93	Through 9/30/94
Transportation		
Federal-aid hwy's (emergency relief).....	11.0	18.4
Local Rail Freight Assist (cont).....	—	3.7
United States Coast Guard.....	—	—
Net Transportation Resource Total	11.0	22.1
Corps of Engineers		
Operations & Maintenance.....	0.7	3.7
Flood control and coastal emergencies.....	3.2	28.0
Net Corps Resource Total	3.9	31.7
EPA		
Abatement, control and compliance	—	1.9
Program and research operations 2.....	—	—
Leaking underground storage tanks	—	0.7
Oil spill response	—	—
Net EPA Resource Total	—	2.6
GSA		
Federal Buildings Fund, Public Buildings Service.....	—	—
Net GSA Resource Total	—	—
NASA		
R&D (Reconnaissance).....	—	—
Net NASA Resource Total	—	—
SBA		
Administrative expenses.....	0.9	1.8
Disaster loan program loan level.....	13.9	33.0
Subsidy BA	2.9	7.3
Gross Subtotal	17.7	42.1
Less Subsidy BA	(2.9)	(7.3)
Net SBA Resource Total	14.8	34.8
OIA's		
Commission on Nat. & Comm. Service		
Emergency Relief Services.....	0.1	—
Net Comm. Service Resource Total	0.1	—
FEMA		
Public Assistance 4.....	30.4	100.7
Individual Assistance.....	—	—
Hazard Mitigation.....	—	—
Administration/Other.....	—	—
Net FEMA Resource Total	30.4	100.7
Legal Services Corporation		
Legal Services Corporation.....	—	—
Net LSC Resource Total	—	—
Resource Totals	92.9	359.5

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Major Disaster Tracking
Disaster: 1993 Midwest Floods
(in millions of dollars)
Obligations by State

	<u>Minnesota</u>	
	Cumulative Obligations	
<u>Agency/Program</u>	<u>Through</u>	<u>Through</u>
	<u>9/30/93</u>	<u>9/30/94</u>
USDA:		
Extension Service.....	0.3	0.3
ASCS:		
Emergency conservation programs.....	—	1.2
Salaries & Expenses.....	—	1.0
Soil Conservation Service.....	—	2.0
Farmer's Home Administration:		
ACIF Loans 2.....	—	—
Subsidy BA 2.....	—	—
Very Low-Income Housing Repairs.....	—	—
RHIF Loans 2.....	—	—
Subsidy BA 2.....	—	—
Rural Development Administration:		
Business & Industry Loan Guarantees 2.....	—	—
Subsidy BA 2.....	—	—
Emergency Water Grants.....	—	—
Fed. Crop Ins. Indemnity Program.....	89.6	89.6
Commodity Credit Corporation Fund.....	0.6	294.7
CCC, change pro-rate from 50.04 to 100%.....	—	179.3
Food Stamp Program 3.....	—	—
Commodity Support.....	—	—
Gross Subtotal	90.5	568.1
Less Subsidy BA	—	—
Net USDA Resource Total	90.5	568.1
Commerce:		
EDA (Emergency Relief) 2.....	0.7	—
NOAA Ops, Research & Facilities.....	—	—
Net Commerce Resource Total	0.7	—
Education 2		
Impact Aid assist loc schools (cont)	—	—
Student Financ. Assist.: Pell grants + Campus Based	—	—
Net Education Resource Total	—	—
Health and Human Services		
Public Health emergency fund.....	—	3.5
Net HHS Resource Total	—	3.5
HUD:		
CDBG 2.....	4.0	13.5
HOME.....	2.7	2.7
Net HUD Resource Total	6.7	16.2
Interior:		
USGS Surveys, Invest. & Research.....	0.2	0.2
Fish and Wildlife Service Construction.....	—	5.2
National Park Service Construction.....	—	0.1
NPS Historic Preservation Fund.....	0.1	0.1
Bureau of Indian Affairs Pgm Op.....	—	—
Net Interior Resource Total	0.3	5.6
Labor:		
Job Training Partnership Act.....	5.0	5.0
Net Labor Resource Total	5.0	5.0

Major Disaster Tracking
Disaster: 1993 Midwest Floods
(in millions of dollars)
Obligations by State

Agency/Program	Minnesota	
	Cumulative Obligations	
	Through 9/30/93	Through 9/30/94
Transportation		
Federal-aid hwys (emergency relief).....	—	4.6
Local Rail Freight Assist (cont).....	1.8	2.6
United States Coast Guard.....	—	—
Net Transportation Resource Total	1.8	7.2
Corps of Engineers		
Operations & Maintenance.....	—	0.1
Flood control and coastal emergencies.....	—	1.0
Net Corps Resource Total	—	1.1
EPA		
Abatement, control and compliance	—	0.7
Program and research operations 2.....	—	—
Leaking underground storage tanks	—	1.4
Oil spill response	—	—
Net EPA Resource Total	—	2.1
GSA		
Federal Buildings Fund, Public Buildings Service.....	—	—
Net GSA Resource Total	—	—
NASA		
R&D (Reconnaissance).....	—	—
Net NASA Resource Total	—	—
SBA		
Administrative expenses.....	0.7	1.2
Disaster loan program loan level.....	7.5	19.3
Subsidy BA	1.5	4.2
Gross Subtotal	9.7	24.7
Less Subsidy BA	(1.5)	(4.2)
Net SBA Resource Total	8.2	20.5
OIA's		
Commission on Nat. & Comm. Service		
Emergency Relief Services.....	0.1	—
Net Comm. Service Resource Total	0.1	—
FEMA		
Public Assistance 4.....	24.4	54.0
Individual Assistance.....	—	—
Hazard Mitigation.....	—	—
Administration/Other.....	—	—
Net FEMA Resource Total	24.4	54.0
Legal Services Corporation		
Legal Services Corporation.....	—	—
Net LSC Resource Total	—	—
Resource Totals	137.7	683.4

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Major Disaster Tracking
Disaster: 1993 Midwest Floods
(in millions of dollars)
Obligations by State

Agency/Program	Missouri	
	Cumulative Obligations Through 9/30/93	Through 9/30/94
USDA:		
Extension Service.....	0.6	0.6
ASCS:		
Emergency conservation programs.....	—	7.5
Salaries & Expenses.....	—	2.0
Soil Conservation Service.....	1.0	19.0
Farmer's Home Administration:		
ACIF Loans 2.....	—	—
Subsidy BA 2.....	—	—
Very Low-Income Housing Repairs.....	0.2	0.2
RHIF Loans 2.....	—	—
Subsidy BA 2.....	—	—
Rural Development Administration:		
Business & Industry Loan Guarantees 2.....	0.7	0.7
Subsidy BA 2.....	—	—
Emergency Water Grants.....	—	—
Fed. Crop Ins. Indemnity Program.....	8.9	12.6
Commodity Credit Corporation Fund.....	18.3	100.1
CCC, change pro-rate from 50.04 to 100%.....	—	49.9
Food Stamp Program 3.....	5.6	—
Commodity Support.....	0.5	—
Gross Subtotal	35.8	192.6
Less Subsidy BA	—	—
Net USDA Resource Total	35.8	192.6
Commerce:		
EDA (Emergency Relief) 2.....	1.4	—
NOAA Ops, Research & Facilities.....	—	—
Net Commerce Resource Total	1.4	—
Education 2		
Impact Aid assist loc schools (cont)	—	—
Student Financ. Assist.: Pell grants + Campus Based	—	—
Net Education Resource Total	—	—
Health and Human Services		
Public Health emergency fund.....	—	17.3
Net HHS Resource Total	—	17.3
HUD:		
CDBG 2.....	23.0	57.2
HOME.....	15.3	15.3
Net HUD Resource Total	38.3	72.5
Interior:		
USGS Surveys, Invest. & Research.....	0.7	0.7
Fish and Wildlife Service Construction.....	—	2.7
National Park Service Construction.....	—	0.2
NPS Historic Preservation Fund.....	—	0.5
Bureau of Indian Affairs Pgm Op.....	—	—
Net Interior Resource Total	0.7	4.1
Labor:		
Job Training Partnership Act.....	15.0	15.0
Net Labor Resource Total	15.0	15.0

Major Disaster Tracking
Disaster: 1993 Midwest Floods
(in millions of dollars)
Obligations by State

<u>Agency/Program</u>	<u>Missouri</u>	
	<u>Cumulative Obligations</u> <u>Through</u> <u>9/30/93</u>	<u>Through</u> <u>9/30/94</u>
Transportation		
Federal-aid hwy's (emergency relief).....	29.0	47.8
Local Rail Freight Assist (cont).....	0.6	7.4
United States Coast Guard.....	<u>3.9</u>	<u>10.0</u>
Net Transportation Resource Total	33.5	65.2
Corps of Engineers		
Operations & Maintenance.....	1.8	18.0
Flood control and coastal emergencies.....	<u>29.4</u>	<u>55.0</u>
Net Corps Resource Total	31.2	73.0
EPA		
Abatement, control and compliance	—	6.9
Program and research operations 2.....	—	—
Leaking underground storage tanks	—	0.7
Oil spill response	—	—
Net EPA Resource Total	—	7.6
GSA		
Federal Buildings Fund, Public Buildings Service.....	—	—
Net GSA Resource Total	—	—
NASA		
R&D (Reconnaissance).....	—	—
Net NASA Resource Total	—	—
SBA		
Administrative expenses.....	7.6	15.2
Disaster loan program loan level.....	115.4	280.3
Subsidy BA	<u>23.7</u>	<u>61.6</u>
Gross Subtotal	146.7	357.1
Less Subsidy BA	(23.7)	(61.6)
Net SBA Resource Total	123.0	295.5
OIA's		
Commission on Nat. & Comm. Service		
Emergency Relief Services.....	<u>0.6</u>	—
Net Comm. Service Resource Total	0.6	—
FEMA		
Public Assistance 4.....	78.6	219.4
Individual Assistance.....	—	—
Hazard Mitigation.....	—	—
Administration/Other.....	—	—
Net FEMA Resource Total	78.6	219.4
Legal Services Corporation		
Legal Services Corporation.....	—	—
Net LSC Resource Total	—	—
Resource Totals	358.1	962.3

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Major Disaster Tracking
Disaster: 1993 Midwest Floods
(in millions of dollars)
Obligations by State

	<u>Nebraska</u>	
<u>Agency/Program</u>	<u>Cumulative Through 9/30/93</u>	<u>Obligations Through 9/30/94</u>
USDA:		
Extension Service.....	0.2	0.2
ASCS:		
Emergency conservation programs.....	—	3.9
Salaries & Expenses.....	—	1.3
Soil Conservation Service.....	—	3.0
Farmer's Home Administration:		
ACIF Loans 2.....	—	—
Subsidy BA 2.....	—	—
Very Low-Income Housing Repairs.....	—	—
RHIF Loans 2.....	—	—
Subsidy BA 2.....	—	—
Rural Development Administration:		
Business & Industry Loan Guarantees 2.....	0.1	0.1
Subsidy BA 2.....	—	—
Emergency Water Grants.....	—	—
Fed. Crop Ins. Indemnity Program.....	—	—
Commodity Credit Corporation Fund.....	2.4	19.4
CCC, change pro-rate from 50.04 to 100%.....	—	10.4
Food Stamp Program 3.....	—	—
Commodity Support.....	—	—
Gross Subtotal	2.7	38.3
Less Subsidy BA	—	—
Net USDA Resource Total	2.7	38.3
Commerce:		
EDA (Emergency Relief) 2.....	0.3	—
NOAA Ops, Research & Facilities.....	—	—
Net Commerce Resource Total	0.3	—
Education 2		
Impact Aid assist loc schools (cont)	—	—
Student Financ. Assist.: Pell grants + Campus Based	—	—
Net Education Resource Total	—	—
Health and Human Services		
Public Health emergency fund.....	—	2.3
Net HHS Resource Total	—	2.3
HUD:		
CDBG 2.....	1.9	7.8
HOME.....	1.2	1.2
Net HUD Resource Total	3.1	9.0
Interior:		
USGS Surveys, Invest. & Research.....	0.1	0.1
Fish and Wildlife Service Construction.....	—	—
National Park Service Construction.....	—	0.1
NPS Historic Preservation Fund.....	0.1	0.1
Bureau of Indian Affairs Pgm Op.....	—	—
Net Interior Resource Total	0.2	0.3
Labor:		
Job Training Partnership Act.....	3.0	3.0
Net Labor Resource Total	3.0	3.0

Major Disaster Tracking
Disaster: 1993 Midwest Floods
(in millions of dollars)
Obligations by State

Agency/Program	Nebraska	
	Cumulative Obligations Through 9/30/93	Through 9/30/94
Transportation		
Federal-aid hwy's (emergency relief).....	—	3.0
Local Rail Freight Assist (cont).....	—	—
United States Coast Guard.....	—	—
Net Transportation Resource Total	—	3.0
Corps of Engineers		
Operations & Maintenance.....	—	—
Flood control and coastal emergencies.....	1.2	4.0
Net Corps Resource Total	1.2	4.0
EPA		
Abatement, control and compliance	—	1.6
Program and research operations 2.....	—	—
Leaking underground storage tanks	—	0.5
Oil spill response	—	—
Net EPA Resource Total	—	2.1
GSA		
Federal Buildings Fund, Public Buildings Service.....	—	—
Net GSA Resource Total	—	—
NASA		
R&D (Reconnaissance).....	—	—
Net NASA Resource Total	—	—
SBA		
Administrative expenses.....	0.4	0.8
Disaster loan program loan level.....	4.1	7.9
Subsidy BA	0.8	1.7
Gross Subtotal	5.3	10.4
Less Subsidy BA	(0.8)	(1.7)
Net SBA Resource Total	4.5	8.7
OIA's		
Commission on Nat. & Comm. Service		
Emergency Relief Services.....	—	—
Net Comm. Service Resource Total	—	—
FEMA		
Public Assistance 4.....	25.8	39.8
Individual Assistance.....	—	—
Hazard Mitigation.....	—	—
Administration/Other.....	—	—
Net FEMA Resource Total	25.8	39.8
Legal Services Corporation		
Legal Services Corporation.....	—	—
Net LSC Resource Total	—	—
Resource Totals	40.8	110.5

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Major Disaster Tracking
Disaster: 1993 Midwest Floods
(in millions of dollars)
Obligations by State

	North Dakota	
	Cumulative Obligations	
Agency/Program	Through 9/30/93	Through 9/30/94
USDA:		
Extension Service.....	0.2	0.2
ASCS:		
Emergency conservation programs.....	—	—
Salaries & Expenses.....	—	0.9
Soil Conservation Service.....	—	2.0
Farmer's Home Administration:		
ACIF Loans 2.....	—	—
Subsidy BA 2.....	—	—
Very Low-Income Housing Repairs.....	—	—
RHIF Loans 2.....	—	—
Subsidy BA 2.....	—	—
Rural Development Administration:		
Business & Industry Loan Guarantees 2.....	—	—
Subsidy BA 2.....	—	—
Emergency Water Grants.....	—	—
Fed. Crop Ins. Indemnity Program.....	28.5	28.5
Commodity Credit Corporation Fund.....	0.1	32.4
CCC, change pro-rate from 50.04 to 100%.....	—	19.7
Food Stamp Program 3.....	—	—
Commodity Support.....	—	—
Gross Subtotal	28.8	83.7
Less Subsidy BA	—	—
Net USDA Resource Total	28.8	83.7
Commerce:		
EDA (Emergency Relief) 2.....	0.3	—
NOAA Ops, Research & Facilities.....	—	—
Net Commerce Resource Total	0.3	—
Education 2		
Impact Aid assist loc schools (cont)	—	—
Student Financ. Assist.: Pell grants + Campus Based	—	—
Net Education Resource Total	—	—
Health and Human Services		
Public Health emergency fund.....	—	1.1
Net HHS Resource Total	—	1.1
HUD:		
CDBG 2.....	3.9	11.9
HOME.....	2.6	2.6
Net HUD Resource Total	6.4	14.5
Interior:		
USGS Surveys, Invest. & Research.....	0.1	0.1
Fish and Wildlife Service Construction.....	—	0.4
National Park Service Construction.....	—	—
NPS Historic Preservation Fund.....	—	0.1
Bureau of Indian Affairs Pgm Op.....	—	—
Net Interior Resource Total	0.1	0.6
Labor:		
Job Training Partnership Act.....	2.0	2.0
Net Labor Resource Total	2.0	2.0

Major Disaster Tracking
Disaster: 1993 Midwest Floods
(in millions of dollars)
Obligations by State

<u>Agency/Program</u>	<u>North Dakota</u>	
	<u>Cumulative Obligations</u> <u>Through</u> <u>9/30/93</u>	<u>Through</u> <u>9/30/94</u>
Transportation		
Federal-aid hwy's (emergency relief).....	—	2.8
Local Rail Freight Assist (cont).....	—	—
United States Coast Guard.....	—	—
Net Transportation Resource Total	—	2.8
Corps of Engineers		
Operations & Maintenance.....	—	—
Flood control and coastal emergencies.....	—	1.0
Net Corps Resource Total	—	1.0
EPA		
Abatement, control and compliance	—	0.9
Program and research operations 2.....	—	—
Leaking underground storage tanks	—	0.3
Oil spill response	—	—
Net EPA Resource Total	—	1.2
GSA		
Federal Buildings Fund, Public Buildings Service.....	—	—
Net GSA Resource Total	—	—
NASA		
R&D (Reconnaissance).....	—	—
Net NASA Resource Total	—	—
SBA		
Administrative expenses.....	0.3	0.6
Disaster loan program loan level.....	6.8	10.4
Subsidy BA	1.4	2.2
Gross Subtotal	8.5	13.2
Less Subsidy BA	(1.4)	(2.2)
Net SBA Resource Total	7.1	11.0
OIA's		
Commission on Nat. & Comm. Service		
Emergency Relief Services.....	—	—
Net Comm. Service Resource Total	—	—
FEMA		
Public Assistance 4.....	16.4	31.7
Individual Assistance.....	—	—
Hazard Mitigation.....	—	—
Administration/Other.....	—	—
Net FEMA Resource Total	16.4	31.7
Legal Services Corporation		
Legal Services Corporation.....	—	—
Net LSC Resource Total	—	—
Resource Totals	61.1	149.6

Notes:

- 1 Amounts appropriated in P.L. 103-75, including contingent amounts that have been released.
- 2 Complete breakout by state not yet available.
- 3 \$600 million was provided by P.L. 102-368 for unspecified disaster relief. Some of the funds were used to assist Midwest flooding victims.
- 4 Total amount shown here; FEMA data will be broken out by category as soon as possible.

Major Disaster Tracking
Disaster: 1993 Midwest Floods
(in millions of dollars)
Obligations by State

	South Dakota	
	Cumulative	Obligations
Agency/Program	Through	Through
	9/30/93	9/30/94
USDA:		
Extension Service.....	0.2	0.2
ASCS:		
Emergency conservation programs.....	—	1.2
Salaries & Expenses.....	—	0.9
Soil Conservation Service.....	—	2.0
Farmer's Home Administration:		
ACIF Loans 2.....	—	—
Subsidy BA 2.....	—	—
Very Low-Income Housing Repairs.....	—	—
RHIF Loans 2.....	—	—
Subsidy BA 2.....	—	—
Rural Development Administration:		
Business & Industry Loan Guarantees 2.....	0.5	0.5
Subsidy BA 2.....	—	—
Emergency Water Grants.....	—	—
Fed. Crop Ins. Indemnity Program.....	27.7	30.1
Commodity Credit Corporation Fund.....	7.8	115.5
CCC, change pro-rate from 50.04 to 100%.....	—	—
Food Stamp Program 3.....	—	—
Commodity Support.....	—	—
Gross Subtotal	36.2	150.4
Less Subsidy BA	—	—
Net USDA Resource Total	36.2	150.4
Commerce:		
EDA (Emergency Relief) 2.....	0.3	—
NOAA Ops, Research & Facilities.....	—	—
Net Commerce Resource Total	0.3	—
Education 1		
Impact Aid assist loc schools (cont)	—	—
Student Financ. Assist.: Pell grants + Campus Based	—	—
Net Education Resource Total	—	—
Health and Human Services		
Public Health emergency fund.....	—	2.6
Net HHS Resource Total	—	2.6
HUD:		
CDBG 2.....	1.9	6.0
HOME.....	1.3	1.3
Net HUD Resource Total	3.2	7.3
Interior:		
USGS Surveys, Invest. & Research.....	0.2	0.2
Fish and Wildlife Service Construction.....	—	—
National Park Service Construction.....	—	—
NPS Historic Preservation Fund.....	0.1	0.1
Bureau of Indian Affairs Pgm Op.....	—	—
Net Interior Resource Total	0.3	0.3
Labor:		
Job Training Partnership Act.....	3.1	3.1
Net Labor Resource Total	3.1	3.1

Major Disaster Tracking
Disaster: 1993 Midwest Floods
(in millions of dollars)
Obligations by State

<u>Agency/Program</u>	<u>South Dakota</u>	
	<u>Cumulative Obligations</u> <u>Through</u> <u>9/30/93</u>	<u>Through</u> <u>9/30/94</u>
Transportation		
Federal-aid hwy's (emergency relief).....	—	2.1
Local Rail Freight Assist (cont).....	—	1.4
United States Coast Guard.....	—	—
Net Transportation Resource Total	—	3.5
Corps of Engineers		
Operations & Maintenance.....	—	—
Flood control and coastal emergencies.....	—	1.0
Net Corps Resource Total	—	1.0
EPA		
Abatement, control and compliance	—	0.7
Program and research operations 2.....	—	—
Leaking underground storage tanks	—	0.3
Oil spill response	—	—
Net EPA Resource Total	—	1.0
GSA		
Federal Buildings Fund, Public Buildings Service.....	—	—
Net GSA Resource Total	—	—
NASA		
R&D (Reconnaissance).....	—	—
Net NASA Resource Total	—	—
SBA		
Administrative expenses.....	0.3	0.6
Disaster loan program loan level.....	9.0	12.9
Subsidy BA	1.9	2.8
Gross Subtotal	11.2	16.3
Less Subsidy BA	(1.9)	(2.8)
Net SBA Resource Total	9.3	13.5
OIA's		
Commission on Nat. & Comm. Service		
Emergency Relief Services.....	—	—
Net Comm. Service Resource Total	—	—
FEMA		
Public Assistance 4.....	15.2	33.1
Individual Assistance.....	—	—
Hazard Mitigation.....	—	—
Administration/Other.....	—	—
Net FEMA Resource Total	15.2	33.1
Legal Services Corporation		
Legal Services Corporation.....	—	—
Net LSC Resource Total	—	—
Resource Totals	67.6	215.7

Notes:

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Major Disaster Tracking
Disaster: 1993 Midwest Floods
(in millions of dollars)
Obligations by State

Agency/Program	Wisconsin	
	Cumulative Obligations Through 9/30/93	Through 9/30/94
USDA:		
Extension Service.....	0.2	0.2
ASCS:		
Emergency conservation programs.....	—	—
Salaries & Expenses.....	—	1.3
Soil Conservation Service.....	—	2.0
Farmer's Home Administration:		
ACIF Loans 2.....	—	—
Subsidy BA 2.....	—	—
Very Low-Income Housing Repairs.....	—	—
RHIF Loans 2.....	—	—
Subsidy BA 2.....	—	—
Rural Development Administration:		
Business & Industry Loan Guarantees 2.....	—	—
Subsidy BA 2.....	—	—
Emergency Water Grants.....	—	—
Fed. Crop Ins. Indemnity Program.....	15.6	15.6
Commodity Credit Corporation Fund.....	0.2	121.2
CCC, change pro-rate from 50.04 to 100%.....	—	73.8
Food Stamp Program 3.....	—	—
Commodity Support.....	—	—
Gross Subtotal	16.0	214.1
Less Subsidy BA	—	—
Net USDA Resource Total	16.0	214.1
Commerce:		
EDA (Emergency Relief) 2.....	0.6	—
NOAA Ops, Research & Facilities.....	—	—
Net Commerce Resource Total	0.6	—
Education 2		
Impact Aid assist loc schools (cont)	—	—
Student Financ. Assist.: Pell grants + Campus Based	—	—
Net Education Resource Total	—	—
Health and Human Services		
Public Health emergency fund.....	—	3.9
Net HHS Resource Total	—	3.9
HUD:		
CDBG 2.....	1.9	5.9
HOME.....	1.3	1.3
Net HUD Resource Total	3.2	7.1
Interior:		
USGS Surveys, Invest. & Research.....	0.1	0.1
Fish and Wildlife Service Construction.....	—	4.3
National Park Service Construction.....	—	0.1
NPS Historic Preservation Fund.....	—	0.1
Bureau of Indian Affairs Pgm Op.....	—	—
Net Interior Resource Total	0.1	4.6
Labor:		
Job Training Partnership Act.....	1.5	1.5
Net Labor Resource Total	1.5	1.5

Major Disaster Tracking
Disaster: 1993 Midwest Floods
(in millions of dollars)
Obligations by State

<u>Agency/Program</u>	<u>Wisconsin</u>	
	<u>Cumulative Obligations</u> <u>Through</u> <u>9/30/93</u>	<u>Through</u> <u>9/30/94</u>
Transportation		
Federal-aid hwy (emergency relief).....	—	1.5
Local Rail Freight Assist (cont).....	—	—
United States Coast Guard.....	—	—
Net Transportation Resource Total	—	1.5
Corps of Engineers		
Operations & Maintenance.....	—	0.2
Flood control and coastal emergencies.....	—	1.0
Net Corps Resource Total	—	1.2
EPA		
Abatement, control and compliance	—	0.9
Program and research operations 2.....	—	—
Leaking underground storage tanks	—	1.5
Oil spill response	—	—
Net EPA Resource Total	—	2.3
GSA		
Federal Buildings Fund, Public Buildings Service.....	—	—
Net GSA Resource Total	—	—
NASA		
R&D (Reconnaissance).....	—	—
Net NASA Resource Total	—	—
SBA		
Administrative expenses.....	0.3	0.4
Disaster loan program loan level.....	6.7	8.4
Subsidy BA	1.4	1.8
Gross Subtotal	8.4	10.6
Less Subsidy BA	(1.4)	(1.8)
Net SBA Resource Total	7.0	8.8
OIA's		
Commission on Nat. & Comm. Service		
Emergency Relief Services.....	0.0	—
Net Comm. Service Resource Total	0.0	—
FEMA		
Public Assistance 4.....	12.3	28.5
Individual Assistance.....	—	—
Hazard Mitigation.....	—	—
Administration/Other.....	—	—
Net FEMA Resource Total	12.3	28.5
Legal Services Corporation		
Legal Services Corporation.....	—	—
Net LSC Resource Total	—	—
Resource Totals	40.7	273.6

Notes:

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Major Disaster Tracking
Disaster: 1993 Midwest Floods
(in millions of dollars)
Obligations by State

	<u>Louisiana</u>	
	Cumulative Obligations	
<u>Agency/Program</u>	<u>Through</u>	<u>Through</u>
	<u>9/30/93</u>	<u>9/30/94</u>
USDA:		
Extension Service.....	—	—
ASCS:		
Emergency conservation programs.....	—	—
Salaries & Expenses.....	—	—
Soil Conservation Service.....	—	—
Farmer's Home Administration:		
ACIF Loans 2.....	—	—
Subsidy BA 2.....	—	—
Very Low-Income Housing Repairs.....	—	—
RHIF Loans 2.....	—	—
Subsidy BA 2.....	—	—
Rural Development Administration:		
Business & Industry Loan Guarantees 2.....	—	—
Subsidy BA 2.....	—	—
Emergency Water Grants.....	—	—
Fed. Crop Ins. Indemnity Program.....	—	—
Commodity Credit Corporation Fund.....	—	—
CCC, change pro-rate from 50.04 to 100%.....	—	—
Food Stamp Program 3.....	—	—
Commodity Support.....	—	—
Gross Subtotal	—	—
Less Subsidy BA	—	—
Net USDA Resource Total	—	—
Commerce:		
EDA (Emergency Relief) 2.....	—	—
NOAA Ops, Research & Facilities.....	—	—
Net Commerce Resource Total	—	—
Education 2		
Impact Aid assist loc schools (cont)	—	—
Student Financ. Assist.: Pell grants + Campus Based	—	—
Net Education Resource Total	—	—
Health and Human Services		
Public Health emergency fund.....	—	—
Net HHS Resource Total	—	—
HUD:		
CDBG 2.....	—	—
HOME.....	—	—
Net HUD Resource Total	—	—
Interior:		
USGS Surveys, Invest. & Research.....	—	—
Fish and Wildlife Service Construction.....	—	—
National Park Service Construction.....	—	—
NPS Historic Preservation Fund.....	—	—
Bureau of Indian Affairs Pgm Op.....	—	—
Net Interior Resource Total	—	—
Labor:		
Job Training Partnership Act.....	—	—
Net Labor Resource Total	—	—

Major Disaster Tracking
Disaster: 1993 Midwest Floods
(in millions of dollars)
Obligations by State

<u>Agency/Program</u>	<u>Louisiana</u>	
	<u>Cumulative Obligations Through 9/30/93</u>	<u>Through 9/30/94</u>
Transportation		
Federal-aid hwy's (emergency relief).....	—	—
Local Rail Freight Assist (cont).....	—	—
United States Coast Guard.....	—	—
Net Transportation Resource Total	—	—
Corps of Engineers		
Operations & Maintenance.....	9.5	9.5
Flood control and coastal emergencies.....	—	—
Net Corps Resource Total	9.5	9.5
EPA		
Abatement, control and compliance	—	—
Program and research operations 2.....	—	—
Leaking underground storage tanks	—	—
Oil spill response	—	—
Net EPA Resource Total	—	—
GSA		
Federal Buildings Fund, Public Buildings Service.....	—	—
Net GSA Resource Total	—	—
NASA		
R&D (Reconnaissance).....	—	—
Net NASA Resource Total	—	—
SBA		
Administrative expenses.....	—	—
Disaster loan program loan level.....	—	—
Subsidy BA	—	—
Gross Subtotal	—	—
Less Subsidy BA	—	—
Net SBA Resource Total	—	—
OIA's		
Commission on Nat. & Comm. Service		
Emergency Relief Services.....	—	—
Net Comm. Service Resource Total	—	—
FEMA		
Public Assistance 4.....	—	—
Individual Assistance.....	—	—
Hazard Mitigation.....	—	—
Administration/Other.....	—	—
Net FEMA Resource Total	—	—
Legal Services Corporation		
Legal Services Corporation.....	—	—
Net LSC Resource Total	—	—
Resource Totals	9.5	9.5

Notes:

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- 4 Total amount shown here; FEMA data will be broken out by category as soon as possible.

Marilyn Goodman
ED HECKER
272-0251

646 4600

Wetlands Restoration Meeting

Sept. 1, 1993

<u>NAME</u>	<u>ORG.</u>	<u>PHONE</u>	<u>FAX</u>
<u>Federal Agencies</u>			
Richard Krimm	FEMA	646-3692	646-4060
Jane Bullock	FEMA	646-3436	646-4291
Frank Thomas	FEMA	646-2717	646-3914
Larry Zensinger	FEMA	646-3685	646-3304
Stanley Genega	Army-CE	272-0094	272-8992
Ed Dickey	Army	703-697-4671	703-697-3366
Bob Stearns	Army	272-0126	504-4389
Michael Davis	Army	703-695-1376	703-697-3366
Mollie Beattie	DOI-FWS	208-7400	208-6965
Michele Altemus	DOI-FWS	208-4717	208-6965
Russ Earnest	DOI-FWS	208-4646	208-6916
Jim Douglas	DOI-FWS	208-7963	208-5078
Carole Florman	DOI-FWS		
Michael Huerta	DOT	366-5781	366-7952
Richard Sanderson	EPA	260-5053	266-0129
David Davis	EPA/OWOW	260-7166	260-6294
Bob Wayland	EPA-OW	260-7160	260-6294
James Lyons	USDA	720-7173	720-4732
Rick Grand	USDA-NRE	720-7173	720-4732
John Maynor	USDA	720-6643	720-8819
Michael Derian	USDA	720-6643	720-8819
Oleta Fitzgerald	USDA	720-0619	720-8819
James McMullen	USDA-ASCS	720-6221	720-4619
Edgar Nelson	USDA-SCS	720-4630	720-7710
Karl Otte	USDA-SCS	720-9574	690-1462
Gary Margheim	USDA-SCS	720-4527	
Tom Wehri	USDA-SCS	720-9574	
Gene Morrison	HUD	708-1547	401-6725
Wilber Hawkins	DOC	482-4067	482-0995
Craig M. Smith	DOC	482-4067	
Bernard Kulik	SBA	205-6734	205-7728
Al Judd	SBA	205-6734	205-7728

Executive Office of the President

Kevin Neyland		3703	
John Gibbons	OSTP	456-7116	395-3261
Mark Schaefer	OSTP	456-6202	395-1571
T.J. Glauthier	OMB-NRD	395-4561	395-4639
Ron Cogswell	OMB-NRD	395-4586	395-1067
Bruce Long	OMB-NRD	395-4590	395-4652
Scott Cameron	OMB-NRD	395-6822	395-6899
Mark Weatherly	OMB-NRD	395-3446	395-4941
Stuart Kasdin	OMB-NRD	395-3446	395-4941
Katie McGinty	WH-OEP	456-6224	456-2710
Keith Laughlin	WH-OEP	456-6224	456-2710
Will Stelle	WH-OEP	395-6533	395-2710
Brian Burke	DPC	456-2995	456-7028
Kathy Way	OPD	456-7777	456-7028
Ken Ryder	OMB-HTF	395-4516	395-6889
Steve Redburn	OMB-HTF	395-4610	395-1037
Chris Heiser	OMB-HTF	395-4610	395-1037
James Kazel	OMB-NRD	395-4590	395-4652

Acting Asst Sec Army, Civil Works

MEETING SCHEDULE

ENVIRONMENTAL FLOOD RECOVERY, INTERAGENCY WORKING GROUP

August 25	Wednesday	10:00 a.m.	OEOB	Room 248
September 1	Wednesday	10:00 a.m.	OEOB	Room 476
September 8	Wednesday	10:00 a.m.	OEOB	Room 476
September 15	Wednesday	10:00 a.m.	OEOB	Room 248

August 27, 1993

NOTE TO: SEE DISTRIBUTION LIST

FROM: T.J. Glauthier and Katie McGinty

SUBJECT: Environmental Flood Recovery, Interagency Working Group

The next meeting has been scheduled for our interagency working group on environmental flood recovery actions. It will be Wednesday, September 1st, 10:00 a.m., room 476 of the Old Executive Office Building (17th and Pennsylvania Avenue).

Please contact Bruce Long's secretary, Renée (395-4590), by COB Monday (August 30th) if there are any changes, otherwise we will use the listing of August 25th. We'd like to keep the group size down to have as effective a working group as possible.

We will discuss your progress to date in implementing OMB's alternative levee restoration or repair policy guidance.

Please come to the meeting with the following:

1. All Agencies -- Status of implementing the alternative levee repair and restoration guidance.
2. All Agencies -- Brief description of programs that, in your judgment, provide cost effective alternatives to levee repair and reconstruction. These could include land purchase or easements, flood proofing or relocation of structures, etc. These descriptions can be the same as those assembled by Secretary Espy for his report to the President. We have attached a form that we would like you to use for this purpose. Our goal is to compile the descriptions and provide them to the DFOs. The DFOs would use the descriptions as a reference source.

**MIDWEST FLOOD RECOVERY PROGRAM
DEPARTMENT AND AGENCY
ALTERNATIVES TO REPAIR AND RESTORATION OF LEVEES
AND OTHER REPAIRS AND RESTORATIONS**

Department: _____

Agency: _____

Program name: _____

Program description:

Program implementation guidance:

Budgetary resources that are or could be made available:

	(BA in millions of dollars)	
FY93		FY94
Direct	<u>FY93 Emergency Supplemental</u>	Likely
<u>Approp.</u>	<u>Direct</u> <u>Contingency</u>	<u>Approp.</u>

Comments on resources:

POTENTIAL ALTERNATIVES TO LEVEE REBUILDING

(August 24, 1993)

The following is a partial list of Federal programs which may be available as alternatives or additions to levee reconstruction or repair. The list is not complete and the agencies should review this list and provide addition, or deletion recommendations.

Department of Agriculture:

Wetland Reserve Program -- permanent easements.

Conservation Reserve Program -- property easements.

Small Watershed Program (P.L. 566) -- non-structural protection.

FmHA debt restructure easements

FmHA inventory property easements and transfers

Waterbank

Department of Interior:

National Wildlife Refuge System -- purchase land.

Partners for Wildlife -- private lands habitat restoration program.

Fish and Wildlife Wetland Easement Acquisition Program

Federal Emergency Management Agency:

Section 404 of the Stafford Act -- buy out program, also available to purchase easements.

Section 1362 of the National Flood Insurance Program -- buy out insured policy holders who are subject to repeated flooding.

Environmental Protection Agency:

Wetlands Restoration -- grants.

Corps of Engineers:

Section 1135 of the 1986 Water Resources Development Act, the improvement of the environment at completed Corps projects.

Housing and Urban Development:

Community Development Block Grant Program -- grants.

Section 203 (h), Mortgage Insurance for Disaster Victims -- relocations.

Small Business Administration:

Disaster Loans -- rebuilding.



EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF MANAGEMENT AND BUDGET
WASHINGTON, D.C. 20503

August 23, 1993

To: Army Corps of Engineers
Federal Emergency Management Agency
Department of Agriculture
Department of Transportation
Department of Interior
Department of Housing and Urban Development
Environmental Protection Agency
Small Business Administration
Other Relevant Agencies

From: T.J. Glauthier, Associate Director, Natural Resources,
Energy and Science, Office of Management and Budget

Katie McGinty, Director, White House Office on
Environmental Policy

Re: Procedures for Evaluation and Review of Repair and
Restoration Projects for Levees

The purpose of this guidance is to ensure the proper consideration of relevant options for repair, reconstruction, and other alternatives to levee restoration necessitated by flood damage. It also is intended to ensure that relevant organizations have the opportunity to comment on project specifications and suggest appropriate modifications. The overall goal is to achieve a rapid and effective response to the damaged flood control system that will minimize risk to life and property, ensure a cost-effective approach to flood damage mitigation and floodplain management, and protect important environmental and natural resource values.

This guidance should be viewed as an opportunity to allow consideration of alternatives with input from Federal, State, and local interests. It is not intended to deny any party access to existing programs for levee repair and restoration, to create unexpected delays, or to force alternatives to repair and restoration on unwilling participants. Nor does this contravene any existing statutory or other requirements.

In acting upon applications for levee repair and restoration of damages incurred as a result of the Midwest floods of 1993, responsible Federal agencies shall follow procedures below:

- At the time of initiating evaluation of proposals for repair and restoration of flood-damaged levees, each agency shall notify the appropriate agencies represented in the Disaster

Field Office (DFO), so that interested agencies may contribute to the evaluation process. The Federal Emergency Management Agency shall provide space at its DFOs for representatives of relevant agencies.

- In evaluating applications for levee repair and restoration in the region of the Midwest floods of 1993, each agency shall consider, to the extent practical, nonstructural alternatives and design modifications that could provide greater local benefits of flood control, reduction of future potential flood damages to the applicant and adjacent upstream and downstream localities, lower long-term cost to the Federal government, and natural resource protection. Agencies are encouraged to include other interested agencies during their evaluation process, to the extent practicable.
- Prior to final action on each application, project proposals shall be made available for review and comment to other Federal and State agencies and local interests represented at the applicable DFO for a minimum period of 24 hours (excluding weekends and holidays). Comments are to be made available to the projects' applicants. Agencies shall take these comments into consideration when making final project decisions.
- On a monthly basis, each agency shall report to the Office of Management and Budget and the Office on Environmental Policy on the status of levee repair and restoration, including: applications received, comments received, and actions taken.

NATURAL HAZARDS RESEARCH
and
APPLICATIONS INFORMATION CENTER
Campus Box 482
University of Colorado
Boulder, Colorado 80309-0482

FAX NO. 303-492-2151

DATE: 2 Nov 93

NUMBER OF PAGES: 17
(including this cover sheet)

TO: Will Stelle
(please notify this person that a fax has been received)

OFFICE PHONE: 202-456-6224

DEPARTMENT: Environmental Policy

INSTITUTION: White House

FAX NUMBER: 202-456-2710

FROM: Gilbert White

OFFICE PHONE: 303-492-6818. PLEASE CALL THIS NUMBER IF YOU HAVE NOT
RECEIVED ALL PAGES.

COMMENTS:

As agreed during our phone conversation,
I am sending these uncorrected page proofs of an
article to appear in the December Environment,
probably on the newsstands in late November, along
with commentaries that the editors had invited
from several experienced folks outside the federal
agencies. I hope that these will be helpful as
you plan the crucial next steps.

GW

THE CHALLENGE OF THE MISSISSIPPI FLOOD

By Mary Fran Myers and Gilbert F. White

To appear in
ENVIRONMENT, December 1993, volume 35, number 10, page 6.

Uncorrected proofs

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Massive flooding in the upper Mississippi River and lower Missouri River basins last summer caused widespread human distress and provoked sober public questioning of the wisdom of the policies and programs that had contributed to that disaster. The slowly rising muddy water floated a cluster of tough issues into the national arena.

As the waters recede and recovery efforts pass their peak, it is appropriate to ask how the United States came to mount its long, giant struggle to master the flows of the Mississippi. What were the dimensions of the 1993 floods in terms of rainfall, streamflow, and control works—both surviving and damaged? Why did so many levees fail? What were the consequences for people, buildings, and the natural landscape? How effective has the prevailing patchwork of federal, state, and local efforts been in dealing with flood losses? Did the Mississippi overflow waters carry significant messages for citizens and administrators who have

sought and still seek lasting harmony with extreme forces in nature? Can these messages motivate fundamental changes in policies on disaster response, recovery, and mitigation and on long-term management of the nation's waters and associated lands?

Central Issues

Frequently in U.S. history, one dramatic event that stirs public concern and shakes up legislators and administrators has led to basic changes in the course of action on natural resources. The record of flood policy illustrates this reaction handsomely. The immediate window of opportunity for change is likely to last a few months or as much as a year or two. Then, the opening may be expected to contract.

It seems possible that, within the current window of opportunity, the nation could resolve three major issues. First and most pressing, decisions must be made about whether to rebuild, strengthen, raise, lower, or abandon the levees

along the upper Mississippi and lower Missouri rivers. How those decisions are to be made is now the subject of searching and testing by concerned citizens and public officials. Will that review and further study result in leaving the rivers very much as they were last June, or will the debate trigger radical revisions?

Second, it remains to be seen what effect these early decisions, in focusing on the emergency, will have on the long-term quality of natural landscapes and human communities in the region. They could optimize the distinctive floodplain values without degrad-

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ing basic resources, or they could exacerbate problems in the long run. Of course, both the problems and the solutions are likely to differ greatly from place to place within the basin. Can the knowledge and skills of the region be mobilized to achieve optimal solutions?

Third, it is apparent that the actions taken to cope with the floods may stimulate measures that could have large significance for water management in the entire nation. Some of these possible measures are improving methods for comparative evaluation of levees with other adjustments to floods; reshaping policy for dealing with substantially damaged structures after flooding; revising the strategy for protecting vulnerable public facilities, such as water treatment plants; changing the policy for extension of federal assistance to property owners who have not elected to purchase flood insurance; increasing the degree to which the availability of federal crop or flood insurance is tied to mitigation of flood, erosion, or drought vulnerability; and expanding the federal government's capacity to assist local communities in drawing up and carrying out plans to address jointly residential, commercial, recreational, agricultural, and wildlife aims in adjusting to the flood hazard. Certain of these measures, such as improvements in flood insurance practice, might have been undertaken in any case, but most are currently receiving attention because of the summer's floods.

How We Arrived Here

The federal government's involvement in coping with flood hazards has grown in sporadic jumps ever since 1825, when a unit of the Army Corps of Engineers was authorized to make waterway improvements (see the box on this page). Although navigation initially was the principal aim, the channel works had incidental benefits for flood management. Floods were then considered by all concerned to be the province of local and state

levee districts. By the major flood of 1850, however, it was recognized in the lower Mississippi basin that some broader kind of program was needed to cope with recurrent flood losses, even though the primary cost was to be nonfederal.¹

After discussions of various possible approaches, a report by two Army engineers, Andrew A. Humphreys and Henry L. Abbott, was received in 1861 as a basis for guiding investment, chiefly by local agencies, in further protection works.² The ap-

SIGNIFICANT EVENTS IN THE DEVELOPMENT OF U.S. FLOOD CONTROL POLICY

- 1825 Board of Engineers for Internal Improvements is authorized to undertake waterway improvements; levees are incidental. Early settlers already active in building local levees.
- 1850 Because of destructive flooding in the Mississippi basin, Congress authorizes surveys of the Mississippi Delta's flood problems.
- 1853 C. S. Ellet, Jr., an engineer, proposes comprehensive flood control for the Mississippi, including levees below Cairo, Illinois, and reservoirs in the Ohio River basin.
- 1861 Two army engineers, Albert A. Humphreys and Henry L. Abbott, propose reliance on levees only, and their proposal is adopted.
- 1862 —
- 1865 — Flooding in the Mississippi River basin.
- 1869 —
- 1874 —
- 1879 The Mississippi River Commission is created.
- 1913 The Ohio Valley floods.
The Board of Officers on River Flooding is created.
- 1917 Federal Flood Control Act of 1917 is passed and establishes a policy of federal funding in restricted areas.
- 1927 The great flood of 1927 overwhelms the lower Mississippi basin. Comprehensive "308" basin surveys are authorized by the Rivers and Harbors Act.
- 1928 The Flood Control Act of 1928 is passed, ending the "levees only" policy.
- 1935-36 Heavy flooding in New England.
- 1936 The Ohio Valley floods.
The Flood Control Act of 1936 establishes a national structural program with local cost sharing, including soil conservation and watershed protection.
- 1937 The Ohio Valley floods.
- 1938 The Flood Control Act of 1938 reduces local cost sharing for reservoirs.
- 1951 The Missouri Valley floods.
- 1961 The Senate Select Committee on Water Resources recommends expanding the scope of water planning and confirms recreational benefits as appropriate for federal funding.
- 1966 The Bureau of the Budget Task Force on Federal Flood Control Policy recommends a Unified National Program for Managing Flood Losses, including flood insurance, to reduce flood losses.
- 1968 The National Flood Insurance Act establishes the Federal Insurance Administration.
- 1979 The Federal Emergency Management Agency is established.
- 1988 The Stafford Act guides flood recovery and mitigation practices in damaged areas.
- 1992 The Federal Interagency Floodplain Management Task Force publishes *Floodplain Management in the United States: An Assessment Report*.
- 1993 The Mississippi-Missouri Valley floods.

proach was limited to levees only. Farmers and town dwellers who had invaded the alluvial lands of the Mississippi called for control by levees. They also wanted assurance that the great barriers of earth being erected along the stream courses would not cause undue damage to areas across the channel or downstream or to the essential maintenance of a navigable channel.

As the levee system was extended and strengthened and as the channel was improved, the river flow was greatly confined. Flood stages (the heights of water in the channels) for given discharges (volumes of water) were increased. Meander belts were curbed as a levee system was completed from Cairo, Illinois, to the delta. When the great floods of 1927 poured into the valley below Cairo, they exceeded the designed channel capacity, levees ruptured, and the river breached its confined course. It spread over about 20,000 square miles, displaced more than 700,000 people, damaged at least 135,000 buildings, and took at least 200 lives.³ As the waters receded, it was clear that the strategy of "levees only" was no longer sufficient. Attention extended to other, supplemental structural measures, such as reservoirs, fuse-plug levees, floodways, and channel improvements. Upstream forest land improvement was discussed but did not figure in plans adopted by Congress in the Flood Control Act of 1928.

Support for the other types of structures was fully incorporated into the policies set in 1936 and 1938 through which the federal government took on a larger burden of the cost and full responsibility for reservoir projects. Parallel support was authorized for soil conservation and watershed protection. This policy did not again change significantly until after a 1966 report from a Bureau of the Budget Task Force on Federal Flood Control Policy recommended an expanded approach to floodplain management, comprising a variety of measures, including flood insurance.⁴ As a result, the Federal Insurance Ad-

ministration and its National Flood Insurance Program were instituted in 1968, providing a basis for communities to examine how a wider range of activities, including land-use planning, flood-proofing of buildings, and integration of warning systems, might be encouraged. Progress along these lines was slow, however.

In 1991 and 1992, the Federal Interagency Floodplain Management Task Force reviewed the status of floodplain management throughout the country and published an assessment report that provided a comprehensive view of where the nation stood as of 1990.⁵ That report did not lead to any immediate changes in policy or practice. The Reagan administration had abolished the Water Resources Council as a coordinating agency; there was little subsequent interest on the part of the Executive Office of the President in the assessment report. Congressional attention at the time was focused on correcting deficiencies in the emergency response program that were revealed by Hurricane Andrew and on the failure of the flood insurance program to deal adequately with mitigation. Then, the flood of 1993 gave new impetus for criticism and change.

The Flood of '93

The flooding in the upper Mississippi and lower Missouri basins from mid June through early August 1993 was caused by intense rainstorms in late June and July that came on the heels of six months of heavy and persistent rainfall. Precipitation between January and July in the affected area was 1.5 to 2 times the normal for that period.⁶ In June, a stalled weather pattern caused by a strong low pressure system in the western U.S. and a large high pressure system in the southeast resulted in large amounts of rain in the upper Midwest (see Figure 1 on page 25).⁷ By late June, flood storage reservoirs were at or near capacity and soils throughout the area were saturated.

Flood peak discharges exceeding

the estimated 10-year recurrence interval were recorded at 154 gaging stations in the upper Mississippi River basin, and the maximum known peak discharge was exceeded at 56 gaging stations.⁸ Peak discharges occurred as late as the first week in August and flooding in some areas continued into October.

Peak flood stages were higher than the previously recorded maximum stages at 73 of these 154 sites (see Figure 2 on page 26).⁹ The fact that previous maximum peak discharges were not exceeded at 22 of these 73 sites is often attributable to changes in landscape, such as those imposed by the construction of levees and control structures, that allow a smaller volume of water to produce a higher flood stage. This effect is illustrated by historical discharge and stage data at selected points (see Figure 3 on page 28). Because of the short data record and changing observation methods, however, it is difficult to assign precise recurrence intervals and elevations to past flows.¹⁰

The flooding caused significant damage in nine states: Illinois, Iowa, Kansas, Minnesota, Missouri, North and South Dakota, Nebraska, and Wisconsin. More than 1,000 levees stretching nearly 6,000 miles in length were breached or overtopped (see Table 1 on page 29). Many others were significantly damaged. Taking into account the excessive soil moisture as well as surface overflow, a total of 487 counties (including all 99 in Iowa) were included in a Presidential Disaster Declaration.¹¹

The number of people affected by this event is not certain. The American Red Cross has estimated that 56,295 family dwellings were affected in some way. Alone, it spent more than \$30 million in flood relief efforts, sheltered 14,502 people in 145 shelters in the region, and served more than 2.5 million meals.¹²

Property damages from the flood have been estimated at \$12 billion.¹³ Disaster relief from the Federal Emergency Management Agency (FEMA) will cover about \$650 million, including

\$250 million for individual assistance and \$400 million for public assistance.¹⁴ By 27 September, the Small Business Administration (SBA) had received more than 16,200 applications for low-interest disaster-assistance loans from individuals and business owners and had approved \$277 million worth. SBA continues to process the applications and will accept applications to provide working capital to make up for economic hardship caused by the flood for up to nine months after the peak of the disaster in July.¹⁵

The Federal Insurance Administration estimates that there are 88,400 policies in force in the nine states, but it is difficult to ascertain how many of these are on structures damaged by the flood. As of 30 September, the administration had received more than 10,500 claims and had processed about one-third of them for more than \$72.4 million.¹⁶

The Federal Crop Insurance Corporation estimates that, of 122.9 million insurable acres in the affected

states (statewide, not just the flooded areas), 69.7 million acres, or 56.7 percent, were insured. As of September, payments of claims for crop damages resulting from flooding and excess moisture in the upper Mississippi basin exceeded \$51.7 million. More than \$600 million in additional claims are expected.¹⁷ Some losses resulted from heavy rainfall rather than flooding, and many farmers could not purchase crop insurance because they were unable to plant a crop.

Comprehensive data on the number of bridges, roads, water and wastewater treatment facilities, and other public infrastructure that were destroyed or damaged by the flood are not available. The suspension of the Des Moines, Iowa, water treatment plant received major media attention, but many smaller operations were also seriously affected.

The Impact on Individuals

In looking at these aggregate numbers, it is important to remember that

the flood did not affect the Midwest, *per se*; rather, it affected thousands of individuals. Even though television news no longer brings news of the flood into people's homes every night, it is still a very big story. Take, for example, the plight of an individual family of townspeople who were victims of this flood. How were they affected?

An Urban Family

When the levee broke, the family's house was inundated up to eight feet deep. Initially, the family went to a public shelter, although others went to stay with a luckier neighbor whose house sat on dry land. When the flood receded, the family returned to discover their home a sodden, uninhabitable mess. They had no potable water because the community's water treatment plant was put out of service by the flood. The local health inspector issued notices that flooded buildings had to be tested for molds and fungus and alerted residents to be aware that the waters that had swept through their town carried pesticides and other toxic substances in concentrations that approached permissible contaminant levels.

The local building official told the family that their house was "substantially damaged" and that, before they moved back in, it would have to be elevated. The family had not purchased flood insurance (none of their neighbors had ever thought the levee would break), so they looked to disaster assistance to help them recover. They were interested in moving out of the area, but, for the time being, the only assistance was a check from FEMA for temporary housing to stay in a hotel for a while and an Individual and Family Grant for \$11,900. They were told they could use the grant to flood-proof some items in their house—for example, they could put the furnace and water heater on the second floor—but this was not enough money to elevate the structure plus clean or replace the siding, furniture, and carpeting. So, they cleaned up as well as they could and received permission to move back into their house

TABLE 1
PRELIMINARY ESTIMATES OF DAMAGE TO LEVEES IN THE
MISSISSIPPI RIVER BASIN IN 1993

Designation	Eligible for federal assistance ^a	Total number of levees	Number of levees damaged ^b	Percentage of levees damaged
Federally constructed and maintained	Yes	15	3	20
Federally constructed and locally maintained	Yes	214	38	16.8
Subtotal for federally constructed		229	39	17
Not federally constructed and locally maintained	Yes	268 ^c	164	61.2
	No	1,079 ^d	879	81.5
Subtotal for not federally constructed		1,347	1,043	77.4
Total		1,576	1,082	68.7

^aEligible levees meet the requirements for assistance under Public Law 84-99. Ineligible levees either do not meet those requirements or did not have an application for assistance submitted for their repair. However, some levees that are ineligible under Public Law 84-99 may be eligible for assistance from the Soil Conservation Service.

^bDamaged means that the levees were breached or overtopped. There may be other levees that were damaged without being breached or overtopped.

^cThese levees together stretch for some 1,800 miles.

^dThese levees together stretch for some 4,000 miles.

SOURCE: Department of the Army, U.S. Army Corps of Engineers, Civil Works, "Tabulation of Levees" (Washington, D.C., 12 August 1993).

on a temporary basis until the city decides whether it will buy out the properties in this neighborhood.

The city is puzzling about how to do this. City officials do not know if the levee will be repaired. The city does not have funds to match the federal grant that might be available for a buy-out. Even if it found the money, however, it likely would not be enough to compensate the family adequately to find a new home; property values in other parts of town are higher. Equally important, the city lacks an employee with the expertise to carry out a program to acquire and relocate flood-damaged properties.

The full, traumatic effects of the fight against the levee break, the evacuation, and the tiring search for recovery are impossible to calculate in the short run. Some consequences will only be recognized as solutions of some kind evolve over months of searching.

It is possible that, at some point in the future, a review of alternative flood protection strategies may make adequate funds and expertise available to the community to buy out this family's house and move them to a new area. That could be months or, more likely, years from now. By that time, the family probably will be re-established in its former location and may have little desire to uproot and move. It will be tempted to argue that a flood like the one in 1993 probably will not happen for another 100 years.

Alongside the experience of towns that were flooded by levee breaks must be placed the arguments of officials in Davenport, Iowa. They believe their city wisely refused to build large levees, in contrast to Rock Island, Illinois, across the river. Davenport had adjusted its land use with a riverside park and waterfront gambling boats and had designed buildings to minimize potential flood losses. Thus, the flood's costs to the city were lower than what the city would have paid for levee construction and for restricted riverfront access.

A Rural Family

Now, consider the situation of a farm family that, for decades, cultivated 250 to 300 acres of rich alluvial soil in bottoms along the lower Missouri and now operates a consolidated farm several times that size. The waters overtopped a levee and flooded the land for the first time since the embankment was strengthened 50 years ago.

The increased high-velocity flow washed soil out of some land, deposited coarse material across one low area, and left a further layer of fertile silt in another stretch. The corn crop was ruined. Drainage ditches were clogged. Debris was deposited in a few low places and along fence and tree rows. The family had worked night and day to strengthen levees as the waters had risen in the stream channel and then to evacuate livestock, people, and especially valuable equipment and goods when it seemed likely that their defenses would fail. The dwelling and major barns were inundated to depths of 3 to 10 feet, and it was 30 days before they again were accessible by trucks on muddy roads.

The family collected \$70 per acre in crop insurance for which it paid an annual premium of \$10 per acre. The neighbor's claims varied according to the duration of and damage done by the flood. The initial costs of flood fighting, evacuation, temporary shelter elsewhere, restoring operations, repairing damaged facilities, replacing lost property, and applying for indemnification or assistance were painfully apparent and difficult to estimate precisely.

Deciding what the family should do beyond recovery raises troublesome questions. Should they seek, with other members of the levee district, to have the levee rebuilt at the previous height and accept the risk of its failing again after another unusual precipitation event? That judgment would be affected by whether levees across the channel or up- or downstream are being raised, lowered, or

abandoned. Whatever the levee protection, the family must decide whether it would be desirable to elevate or otherwise flood-proof any of the farm structures to make them less vulnerable to damage in the next flood. Could some or all of the area be left unprotected from floods and dedicated to hunting and fishing in the natural habitat, thereby increasing to some unspecified degree the flow capacity of the channel?

There are no easy, general answers to these questions. The floodplain differs in soils, vegetation, flood vulnerability, and drainage from one reach to the next. It is affected by improvements to the navigation channel and by the height and configuration of the levees. Stream discharge is influenced in a number of ways by upstream precipitation, land use, and reservoir storage. Farm management in the floodplain also varies greatly.

The Repair/Rebuild Dilemma

When response activities to any disaster turn to long-term recovery operations, conventional wisdom suggests that people should go about rebuilding and reconstructing in a way that reduces the likelihood of significant damage from future similar events. In this case, two major dilemmas have arisen that serve as poignant examples of why conventional wisdom is not always followed: how to deal with the reconstruction of thousands of damaged buildings and what to do with all of the broken levees that have left hundreds of square miles of floodplain without structural flood control protection.

In regard to damaged buildings, many local codes require structures damaged beyond 50 percent of their value to be rebuilt in compliance with the minimum standards of the National Flood Insurance Program, which state that the lowest floor must be at or above the level of the 1-percent chance flood. This requirement often presents an overwhelming economic burden on victims who must struggle just to replace what

they had prior to a flood, much less to absorb the cost of elevation or relocation.

As for the more than 1,000 damaged levees, many of them were locally owned and operated and are not eligible for federal reconstruction assistance. Many were designed and built to provide protection only from frequent flood events. That they were overtopped or failed last summer should have surprised no one.

The Opportunities

There are opportunities, however, to rebuild in a safer manner. For example, reports from postdisaster mitigation teams indicate that as many as 200 communities may be interested in acquiring and relocating or demolishing their structures that were substantially damaged.¹⁸ FEMA is focusing the use of its Section 404 Hazard Mitigation Program grant funds—an estimated \$45 million, which must be matched by the recipients on a 50/50 cost-sharing basis—on acquisition and relocation projects and also has funds available to provide technical expertise to communities wishing to undertake such projects.¹⁹ Lessons from past experience with acquisition and relocation projects for substantially damaged structures provide much guidance on how to ensure the success of such efforts. If these lessons are applied, the wheel does not have to be reinvented.²⁰ Several other financial assistance programs exist that can be used to help fund mitigation projects for substantially damaged structures, including SBA disaster assistance loans, various FEMA disaster assistance programs, Housing and Urban Development grant and loan programs, and state housing and development finance authorities.

Opportunities for changing "business as usual" for levee reconstruction also exist. To facilitate the search for appropriate alternatives, the Office of Management and Budget (OMB) issued guidance on 23 August for the establishment of an unprecedented review procedure to assess strategies for levee reconstruction.²¹ The agencies in-

involved in this review include FEMA, the Army Corps of Engineers, the Soil Conservation Service, the Fish and Wildlife Service, and the Environmental Protection Agency as well as state and local government agencies and other interested organizations. OMB's short-term policy guidance calls for the agencies' representatives to consider nonstructural alternatives to levee repair that would benefit both flood control and natural resource protection. The implication for FEMA's disaster field offices is that the interagency team is reviewing each application for levee repair and trying to determine whether a nonstructural alternative is appropriate for that levee.

The White House has called for a broader review of alternatives—one that looks at the entire upper Mississippi and lower Missouri watershed.²² In late August, the White House and the Office of Management and Budget established a new task force to evaluate and review the procedures for repairing and restoring levees. The same offices are taking steps to prepare, by February 1994, recommendations for further action.

The Association of State Floodplain managers and the Association of State Wetland Managers have also furthered the debate by sponsoring two major conferences among interested citizens and government officials in August and September in St. Louis, Missouri.²³ On 30 and 31 August, representatives of the nine states affected by the flood, federal agencies, environmental organizations, the White House, and Congress gathered to share information on post-flood recovery activities as well as to identify opportunities to help communities and states recover in a way that would prevent a future similar event from causing such extensive damage. The three key issues addressed at this meeting were substantially damaged structures, levee reconstruction, and community recovery planning. The second, follow-up meeting was held on 27 through 29 September. Discussions at this meet-

ing focused primarily on agricultural concerns related to the flood and on opportunities for the restoration of wetlands. Although much of the background information and issues discussed during the conferences had already been appraised by the leaders of the associations in the year before the floods,²⁴ the body politic had adopted no plan or policy as to what to do next.

Overcoming the Dilemma

Although interest in the acquisition and relocation of flood-damaged structures is unprecedented and the consideration of alternatives to levee reconstruction—under the leadership of the White House—is a pioneering effort, problems do remain. For instance, there is a continuing, critical need for better public awareness, training, and education about disaster relief programs and mitigation options. Local officials who are caught up in day-to-day immediate response and recovery activities are often unfamiliar with long-term mitigation assistance programs. These programs take considerable planning effort, and most communities have not learned a lesson from other communities hit by disaster—the lesson that pre-event planning for recovery clearly pays off afterwards.

Mitigation work is also hampered by the conflicting goals of the short- and long-term disaster assistance programs. Initial disaster assistance enables people to get back on their feet and thus makes them less likely to support more comprehensive programs, such as acquisition or relocation, at a later date. If interest does exist, slow processing of applications for projects eligible for hazard mitigation funds from FEMA often causes people to lose interest and become unwilling to participate.

As for the levees, the interagency teams considering their reconstruction or repair are having difficulty striking a balance between the need to restore flood protection quickly and the need for long-term planning for alternative flood protection that incorporates the concerns of sound eco-

system management. This is particularly problematic because the review procedure outlined in the Office of Management and Budget's directive²⁵ on levee repair does not match well with existing statutes and regulations under which the Army Corps of Engineers and the Department of Agriculture carry out such efforts. Because the current flood control strategy in the country is biased toward structural solutions, programs for viable alternatives and guidance on how to finance and implement them are not well formulated. Policy options suggested by federal agency headquarters or other executive offices may not be carried out in the field simply because adequate information to do so does not exist. Nor is the appropriate level of rigor for the cost-benefit analyses of alternatives clear. How are downstream impacts considered; how is future loss accounted for; how are other government expenditures, such as subsidies to farmers to forgo planting crops, incorporated into the equation; and how are environmental benefits quantified?

Recognizing Floodplain Values

Over the past three decades, several streams of thought have converged to shift both popular and technical views of floodplains. The limitations of engineering measures to restrict and channel river flow have been recognized more clearly. The uncertainties inherent in water engineering have been demonstrated along the Mississippi by the ways in which levees have increased flood stages. Levee failures have begun to be viewed as the river reclaiming its natural terrain.

During the same period, the significance of wetlands and floodplains in providing distinctive habitat, soil conditions, water storage, and ground- and surface-water quality was established in the scientific and political arenas. This significance was appraised in *Restoration of Aquatic Systems: Science, Technology, and Public Policy*, a 1992 report by a committee of the National Research Council.²⁶ That

document summed up the state of knowledge of the interrelations of physical, biological, and social factors in wetlands, including floodplains. The overall opportunities for wetland restoration had already been brought to national attention by the controversy over the federal policy of ~~expanding~~ "no net loss" of wetlands and the accompanying issue of how to define what is a wetland.²⁷ For the first time, questions of habitat diversity and function came to be widely considered in association with questions of watershed hydrology and sedimentation, multiobjective river management, and land-use plans along stream channels.

These various aims now are reflected in an uncoordinated set of federal and loosely related state and local initiatives. The National Park Service assists in planning rivers and trails projects. The Environmental Protection Agency supports a Watershed Planning Program and seeks to link it with provisions of the Clean Water Act. Under the Soil Conservation Service, there is a Wetlands Reserve Program. Within the Department of the Interior, there are several programs dealing, at least in part, with waterfowl management, including Partners for Wildlife, the Waterbank Program, and the Land and Water Conservation Fund. The Army Corps of Engineers also has authority to support environmental improvements and is undertaking major studies in that direction.²⁸ Some of these agencies work closely with nongovernmental organizations such as The Nature Conservancy. The program's effectiveness would be greatly enhanced by early prioritization, in terms of location and timing of wetlands for restoration. Such prioritization would facilitate attainment of the programs' goals and eliminate much of the ambiguity as to which wetlands—mainstream floodplains, tributary floodplains, upland marsh areas, potholes, and the like—would be targeted for early treatment.

These deepened scientific understandings and broadened views of the

ecological linkages have fostered an unprecedented growth of concerned citizen organizations at the local, state, interstate, and national levels. Appeals for action have been strong and pointed from a variety of traditional environmental organizations: American Farmland Trust, American Rivers, Environmental Defense Fund, Environmental Law Institute, Izaak Walton League, National Fish and Wildlife Federation, Sierra Club, and World Wildlife Fund. Newer groups, such as the Coalition for the Restoration of Coastal Louisiana and the Coalition to Restore Urban Waters,²⁹ are addressing related problems of wetlands' values in less conventional ways.

A call for action along broader lines, incorporating agricultural and conservation goals, was issued in August by the Upper Mississippi River Conservation Committee.³⁰ Its call, representing the states in the upper basin, was for an unprecedented level of environmental restoration. Many other citizen groups are also becoming involved. The major significance of these multiple initiatives is that they are moving in roughly converging directions and, for the first time, show signs of harmonious action with urban and rural groups involved in addressing other values in floodplain management. Thus, the alternative of wetland management has emerged as practicable.

The Need for Mitigation

In a similar vein, the concept of mitigating damages from disasters has gained full currency over the past few decades. There is now a well-established consensus that the disaster cycle of preparedness, response, and recovery must include the fourth component of mitigation. This component ensures that damaged facilities are not automatically repaired and replaced to their pre-event status; rather, they are removed, so far as is practicable, from harm's way or reconstructed in such a way as to avoid future damages.

Federal policy has done much to promote the concept of mitigation, especially immediately after a disaster, when awareness of the problems that hazards present is high and political support to correct deficiencies in existing programs is strong. For example, since 1988 when the Stafford Act³¹ was passed, the federal disaster relief assistance available to communities has included funds needed to repair or replace damaged public structures in a safer (and often more expensive) manner. Since the early 1980s, there has been a concerted effort made by federal interagency hazard mitigation teams to identify opportunities for mitigation in communities that have just experienced a major disaster.³²

Unfortunately, no systematic assessment has been made to track the effectiveness of the teams or to determine the outcome of the recommendations they make immediately after disasters. Also unfortunately, the push for mitigation seems to be at its peak only when disasters occur. Although some agencies such as FEMA work consistently during both disaster and nondisaster times to promote mitigation (and James Lee Witt, the new director of FEMA, has announced that mitigation would be his central concern),³³ other local, state, and federal agencies, many citizens, and Congress appear content to let hazards and the need for mitigation fade into the background soon after an event occurs.

Marshaling Government

In light of the decisions that have been made regarding the human occupation and development of the Mississippi watershed that led to the summer's flood and the dilemmas it has presented, the challenge that lies ahead is clear. Disasters such as the flood of '93 cannot be considered impossible or highly unlikely; rather, they must be viewed as a reality.

Although the early studies by Humphreys and Abbott looked to a system of levees for which the local

landowners would carry the financial burden, the evolution of commitments and activities has blurred public concepts of what is an effective national strategy for dealing with floods and where responsibilities should rest among property owners, local governments, states, and the federal agencies. The "levees only" policy has been demonstrated to have severe limitations. Some floodways and reservoirs have also proven inadequate in coping with great floods. Although the concept of unified floodplain management has received endorsement in theory,³⁴ it is far from being realized in practice. One striking example of this problem may be seen in how FEMA's National Flood Insurance Program, which was intended to promote such management, has instead encouraged uneconomic reconstruction and new building in the floodplain with insurance coverage and how disaster assistance has in some instances abetted it. Another example is how the federal government has provided grants for building public facilities, such as water treatment plants, in flood-prone areas. Natural values of floodplain environments are given lip service but little concrete support. For example, landowners receive little technical advice about how they can use wetlands instead of engineered protection.

A key consideration in the near future is timing. Can the concern to recover promptly be reconciled with the need for further scientific and technical studies and with the need to forge stronger private and government instruments to carry out the desired actions at the community level? One possible strategy relies on the recognition that the next potentially damaging flood might come next year or might not occur for decades. Its recurrence is certain, but its timing is uncertain. Under these circumstances, the federal government might institute new provisions of crop and flood insurance to indemnify property owners behind unrepaired levees against any damage they might suffer from a flood until such time as a deci-

sion is made whether to rebuild the levees to previous levels. Thus, the breathing space required for developing alternative programs could be supplied at little or no cost to the taxpayer and at little or no financial risk to the floodplain occupant.

The Months Ahead

If the work of the White House's new task force is to lead to truly constructive action, its appraisal of options to use and preserve the natural resources of the area must be supplemented with a set of hard-headed suggestions as to how current procedures and programs can be revised to reach those aims. In developing these suggestions, the task force must also address the interrelationship between hazards and the myriad decisions made on a daily basis at the individual, local, regional, and national levels. The nation's strategy for mitigating damages from disasters should not be driven by its disaster relief policy.

In the next year or two, the national approach to coping with the flooding may not change at all; disaster assistance, insurance offerings, and the current practices of federal agencies may have altered little. That is one extreme. At the other, a vision of a new harmony in the aspirations for the Mississippi basin and for other basins around the country might emerge. In addition to sharing that vision, the task force might find practical ways to help put it into effect. Such a vision might regard hazards not as single, rare events but, rather, as part of a continuum wherein the resiliency of natural and social resources is tested.

In between these two extremes, there might well be a few major improvements that fall short of a full reorientation of policy and programs. The current congressional review of legislation affecting property insurance is likely to lead to helpful changes in procedures affecting requirements for federal financial assistance. For example, if lending institutions were penalized for not requiring property buyers to purchase

flood insurance for flood-prone property as a condition for receiving a mortgage, more properties would be insured. Also, more buyers would be forewarned of the risk of flooding and so could choose not to buy. In either case, the need for federal disaster relief assistance would likely decrease. In addition, FEMA's commitment to mitigation may be expressed in operating rules that will reduce vulnerability before the next disaster strikes.

Other steps outlined in the Federal Interagency Floodplain Management Task Force's assessment report and its companion, *Action Agenda for Managing the Nation's Floodplains*,³³ might be adopted (see the box on page 02). Those several actions would together mark a significant advance.

It is not unduly sanguine to expect that scientific and public support may be marshaled for a series of executive orders or administrative agreements

that would promote comprehensive state floodplain management planning; steer federal activities in harmony with that planning; establish broad priorities for wetland restoration; strengthen coordination of federal agencies' efforts to assess the vulnerability of public facilities and preparedness and flood-proofing measures; and step up education and training relating to the nature of flood hazards and natural values of flood-

RECOMMENDATIONS FOR FLOODPLAIN MANAGEMENT

In 1992, the Federal Interagency Floodplain Management Task Force published an assessment report on the status of the United States' floodplain management. Before the report was published, the task force invited a panel of independent experts to review the report. The following is a list of recommendations put forward by the task force and the panel.

To integrate flood loss vulnerability and protection of floodplain natural values into broader state and community development and resource management processes,

- vigorously foster the preparation of state floodplain management plans, involving both public and private interests and, where appropriate, interstate agreements;
- require preparation of state comprehensive floodplain management plans as a condition for continued participation in the National Flood Insurance Program;
- prepare an executive order requiring that new federal investments, regulations, and grants-in-aid be consistent with state and local floodplain management plans that conform to federal standards; and
- adjust tax codes to discourage building in flood prone areas.

To improve the database for floodplain management,

- remap the nation's floodplains, where appropriate, to take into account potential changes in hydraulic conditions associated with full development of the drainage areas under existing land-use plans;
- establish a cooperative, jointly funded program by the National Science Foundation and interested federal agencies to develop methods for mapping,

regulating, and identifying natural values in areas with special flood hazards;

- develop an accurate, affordable, national system for gathering flood loss data; and
- fund research to examine, in a selected sample of communities, the full benefits and costs of floodplain management measures.

To give weight to local conditions,

- without loosening the limits on permissible vulnerability, examine the practicability of using performance standards for the preservation, use, and development of floodplains;
- further experiment with the National Flood Insurance Program's community-rating system to encourage communities to adopt a variety of flood hazard mitigation measures, such as zoning, particularly suited to their local circumstances; and
- redesign local zoning and subdivision regulations and building codes to contribute to the management of floodplains' natural resources.

To minimize conflicts and gaps among federal programs,

- establish an independent task force to continue to review and recommend changes in the current Unified National Program for Floodplain Management.

To reduce vulnerabilities,

- prepare assessments of the vulnerability to flooding of a sample of facilities built with federal aid;
- fund research on techniques for estimating benefits and costs to encourage local agencies to improve flood preparedness and retrofitting;
- assess existing aging flood control structures and make recommendations for sustainable improvements or replacements;
- improve land-use regulations to re-

duce encroachment onto floodplains downstream of dams;

- assess alternative designs to channel modification that include less straightening of channels, employ more gradual slopes, and use natural vegetation or riprap rather than concrete-lined channels;
- assess pre-existing storm water networks and make suggestions for alternatives such as on-site retention, natural drainage systems, and zero-increment runoff for new development;
- establish positive tax incentives for the preservation and restoration of floodplain resources; and
- provide incentives and technical and financial assistance for land treatment measures, such as maintaining trees, shrubbery, and vegetative cover; terracing; slope stabilization; grass waterways; contour plowing; conservation tillage; and strip farming.

To improve professional skills and public education,

- develop training programs and conduct regional training, at an affordable rate, for appropriate government personnel;
- expand and evaluate efforts to inform and educate the public about flood hazards and flood management; and
- improve documentation and quantification of the values of natural floodplains to improve public understanding of possible needs for protecting those values.

SOURCES: Federal Interagency Floodplain Management Task Force, *Floodplain Management in the United States: An Assessment Report* (Washington, D.C.: FEMA, 1992); and Natural Hazards Research and Applications Information Center, *Action Agenda for Managing the Nation's Floodplains*, special publication no. 25 (Boulder, Colo.: Natural Hazards Research and Applications Information Center, 1992).

plains. These goals could be achieved without major new legislation, but their achievement would be accelerated if federal agencies were allowed more flexibility in how they allocate available disaster relief funds. The long-term benefits would extend far beyond the Mississippi basin.

In less than two centuries, the nation has moved slowly, often by trial and error, from a belief that levees could surely protect humans and their built environment to a recognition that the built and managed environment must be more open to accommodating its natural components. The need to integrate the nation's disaster response and relief policies more closely with broader environmental and economic policies is now accepted. Events like the flood of '93 offer an opportunity to speed the formation of sounder policy. This opportunity should not be squandered.

ACKNOWLEDGMENTS

The authors are indebted to Sharon Gabel, David Morton, and Eve Passerini for their assistance in preparing this article.

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The figures discussed in this article and commentary on the article will appear in the December 1993 issue of ENVIRONMENT.

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overview

THE MISSISSIPPI FLOOD

COMMENTARY

If we have learned one lesson this summer, it is that the United States can no longer allow decisions about flood control and sound floodplain management to fall victim to the tyranny of small decisions. When the flood waters rose this summer, no single piece of legislation or other authority outlined a comprehensive set of measurable goals for the nation's flood control policies. At the federal level alone, at least 25 subdivisions of 12 departments and agencies control some piece of the puzzle. A mishmash of laws, executive orders and directives, administrative regulations, interagency actions, and agency policies and programs ostensibly thread together all of these flood control efforts.

By the time the flood waters recede, Mary Fran Myers and Gilbert F. White hope, a new vision that promotes comprehensive floodplain management and wetlands restoration will emerge (see Myers's and White's article beginning on page 4). The good news, they report, is that this society is moving, albeit slowly, from trying to tame the river to learning to make peace with it. Unprecedented demand exists for nonstructural alternatives such as relocation. Perhaps 200 communities may decide partially or totally to move out of harm's way.

What seems clear is that the United States cannot afford to maintain the status quo. The tragedy of this summer's destruction is that it was entirely predictable. Thousands of seemingly separate decisions—to drain a few acres of wetlands in Iowa, to build an agricultural levee outside Chesterfield—set the stage. The Mississippi has sent a powerful message: Short-sighted structural solutions coupled with unwise land management practices have put people and property at risk. Instead of allowing the river to fan out and take advantage of the natural flood control function of

floodplains, the United States has spent billions of dollars to force the river into ever-tighter channels, which raises flood crests and creates a false sense of security that has encouraged floodplain development.

The bad news is that the meager funds for relocation and other nonstructural solutions, such as wetlands restoration, are hamstrung by conflicting rules and regulations. The Clinton administration has issued guidance ordering the consideration of nonstructural alternatives to rebuilding levees. But the resources and expertise needed for these options—not to mention the dollars—are scarce. Disaster assistance is still skewed in favor of relief and against long-term flood loss reduction. Most people are deciding to rebuild in harm's way, and once again, flood control policy is falling victim to small decisions.

Unless the people of the Midwest are given viable alternatives to merely rebuilding the levees, there is little chance of any change. The United States needs to use its limited resources to help people voluntarily move away from the river, to get them out of flood-prone areas, to restore wetlands, and to take advantage of the natural flood control provided by the floodplain. In a watershed where lakes and wetlands are preserved, water is released at different rates and reaches the channel at different times. In contrast, a watershed engineered to move water off the land quickly through drains and channels will release most of the water simultaneously, increasing flood crests.

An August 1993 report prepared by the Illinois State Water Survey once again confirmed that wetlands act as natural sponges, storing water and releasing it over time.¹ For every 1-percent increase in the area of a watershed's wetlands, the authors found, a flood's peak flow in the streams that drain the watershed is reduced by 3.7 percent, on average. Consider, then, what might have happened if more than 19 million acres of

wetlands had not been eliminated from the drainage basins of the Mississippi and Missouri rivers north of St. Louis since the late 1700s. Illinois, Iowa, and Missouri—the states that suffered the most damage this summer—have lost 85 percent or more of their marshes, bogs, and fens.

The conventional wisdom is that this summer's flooding was a product of a wet spring followed by persistent weather patterns from early June through July created by the convergence of warm, moist air from the Gulf of Mexico and much cooler, drier air from Canada. But to figure out when the flooding really started, one would have to go further back than last spring, back to the first farmer who "reclaimed" a prairie pothole. Now is our chance to reverse the practices that will cost the taxpayer at least \$6 billion this year and countless billions in the future. People in the Midwest tend to measure the Federal Emergency Management Agency, the Army Corps of Engineers, and other agencies by how quickly checks are cut and levees are rebuilt. But the true measure of their performance will be how well the Midwest withstands the next flood.

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AS MARY FRAN MYERS and Gilbert F. White point out in their thoughtful article about the floods of 1993 in the upper Mississippi and Missouri river basins, natural catastrophes provide both the incentive to reconsider policy and a social climate anxious to return to normalcy. The vignettes describing the loss and suffering that the flood visited upon individuals and families demonstrate the need for immediate support to alleviate such misery, but time is needed to develop sound policy and plans for the future.

With the waters still high, speculative views about the precise impact of levees on flood stages at various locations and about the mitigating role that bottomlands and wetlands would play in the absence of levees are conflicting. Because of the hydraulic and hydrologic continuity of flood flows along the river, flood-routing models based on appropriate topographic and other information must be developed to inform the policy debate. Although these models may exist for some locations, other locations may require new field surveys and development. Such surveys may take time, but the resolution of many policy issues and local decisions depends upon some level of agreement about the fundamental relationships between flows, stages, and frequency. Such agreement may exist, but I have not heard it in the public arena.

As White and many others have pointed out in the past, people use flood-prone areas

for a variety of reasons, some of them good and even rational. Although it is proper to focus on the mitigation of damages, this may also be a good time to renew investigation of the real and presumed benefits to society of the varied and apparently growing occupancy of flood-prone lands. These benefits are often assumed to be greater than the costs of providing a host of mitigative actions, but they are difficult to spell out. It would be useful to reiterate the economic and other benefits, beyond the damages averted, of uses of flood-prone lands. Wetlands, of course, are among such uses and are currently seen as having considerably more value than was attributed to them 150 years ago, when wetlands were considered to be "malarial swamps." Conversion of much of this wetland to very productive farmland has been a triumph of human endeavor. Myers and White indicate that there are many ways to reduce the risk to farming while enhancing wetland values.

The interesting historical record of response to catastrophe provides both encouragement and caution: encouragement at the broadening of approaches to mitigation and caution because many of the actions on the agenda proposed by the state representatives have a familiar ring. Their familiarity—born of frequent repetition—suggests the need for priorities. In this period of scarce government resources, a first priority might be sharpening the sticks that accompany the carrots of support for land

use and planning in many federal subsidies, from insurance to shared costs for structures and planning. Certainly of equal priority is applying pressure on states and local jurisdictions to require federal agencies to abide by legislation and regulations restricting uses of flood-prone lands. That federal agencies flaunt the rules is evident in some post offices and federal highway sites.

At least since the 1960s (and probably in the 1930s), the call has gone out for consistent measures of flood damages. Until these measures have been achieved, it is hard to see how sensible policy choices that are based, even to a modest degree, on comparisons of benefits and costs can be made. Basic information about the distribution of areas subject to flooding, the values of "natural" areas, and the benefits and costs of floodplain use and mitigation of damages constitute the fundamentals on which sound policy decisions can be based. The driving force to obtain such information is often the passage of laws and regulations that demand its use. The 1992 assessment and report of the Federal Interagency Floodplain Management Task Force and the accompanying *Action Agenda* provide a full menu of recommended activities, but a clarification of the interrelationships among the proposed activities is needed. Moreover, there is good reason to believe that the hot iron of the 1993 catastrophe will cool before much policy deliberation and decisionmaking can be achieved. The agenda, of course, is designed to meet the demands of the future, but its launching depends on the dimming memory of the catastrophe.

The success or failure of the course precipitated by catastrophes in the 1920s and 1930s, and even earlier, remains a subject of debate. It is probably impossible to make such an evaluation. I have the impression that succeeding years have shown incremental improvements in policy that have resulted in mitigation of damages. Yet the total bill is apparently rising. Perhaps some inquiry is needed to evaluate what has worked, where, and why—as difficult and uncertain as such evaluations must be.

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EBBING FLOOD WATERS are invariably followed by fading memories. The attention of individuals, communities, and government agencies quickly turns to other concerns, and the intense experiences and powerful images of the flood recede into the past. Those driven out by rising waters often venture back, believing that they have withstood the worst nature has to offer. However, the Mississippi floods of 1993

may have been different. As Mary Fran Myers and Gilbert F. White point out, the duration, extent, and intensity of this flood have left an impression that will not easily be eroded by time.

It is clear from the statistics the authors present that the flood was an extreme event and that the weather patterns that produced it were unusual, as well. Although it is true that a natural event as complex and widespread as this flood cannot be captured in a single statistic like a recurrence interval (the average number of years within which a given event will be equaled or exceeded), the data indicates that the flood—as measured by stage if not by runoff—was more extreme than was the rainfall.¹

Unquestionably, the flood was exacerbated by control structures and land-use changes in the upper Mississippi and lower Missouri basins. Just as clearly, the widespread property damage was the result of increased encroachment into the floodplain, a phenomenon that was encouraged by investments in structural protection—behavior that has been well-documented elsewhere.²

One important measure of land-use change is the loss of wetlands in the upper Mississippi. Draining, dredging, and filling activities in the watershed above St. Louis have eliminated an estimated 19 million acres of wetlands. In Missouri, Illinois, and Iowa—three of the states hardest hit by the floods—85 percent of the wetlands have been lost over time.³ Agriculture accounts for the largest single land-use change—which does not entirely destroy the land's usefulness as a flood buffer—but it is evident, nonetheless, that the conversion contributed to both the severity of the flood and the damage it inflicted.

Given the influence of land forms and use patterns in attenuating or aggravating the effects of intense weather, it is interesting to note that, in some quarters at least, the rush to transform natural systems to something more "useful" may be on the wane. Over the past several years, public agencies responsible for natural resources protection and environmental quality assurance have gradually become more receptive to proposals for habitat restoration and the use of these rehabilitated systems in managing water quality protection, ensuring biological diversity, and providing for flood control. Evidence of this change can be seen in such activities as the endangered fish recovery program in the Colorado River and the review of mainstream dam operations on the Missouri.

This new attitude toward nature will be helpful in picking up the pieces in the aftermath of the flood. The restoration and use of natural systems like wetlands, both for flood protection and habitat value, in conjunction with manmade systems such as

levees and dams, must now be part of protection plans.⁴ Any serious programmatic review of the Mississippi-Missouri system will surely have to look at habitat restoration facilitated through easements and land purchases as an environmentally sound and, quite possibly, lower-cost alternative.

Reintroducing the use of natural systems as part of the solution will require time for planning and execution. During that time, those who have experienced loss must be protected, but not in a manner that locks in old solutions. Myers and White suggest a variety of ways to buy time, such as providing insurance protection rather than levee repair. A similar approach would be the purchase, by the appropriate public agency, of a conservation and flood easement on private land.

No matter what is done, funding will be required. One place to look for a portion of the needed money is in existing programs that are now designated for other, not unrelated purposes. One example is the Conservation Reserve Program, a title in the Food Security Act of 1985 designed to reduce water pollution from agricultural land by paying farmers to take highly erodible land out of production for a 10-year period as a bridge to its permanent retirement. This program will be up for consideration in the 1995 Farm Bill, and it could be expanded or redesigned to accommodate provisions for nonstructural flood protection.

Rare events often prompt new ideas. The magnitude of the Mississippi flood and its impetus to re-examine protection strategies, in conjunction with emerging attitudes on habitat restoration in public agencies, may rouse us to modify the way we have chosen to fend off the caprice of nature.

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MARY FRAN MYERS AND Gilbert F. White have thoroughly outlined the issues presented by the 1993 floods, the history of

flood management in the Midwest, and the options the nation now faces. They ask, will the United States use the attention and lessons of this flood to correct some of the past errors in national flood damage reduction policy, or will the government once again help landowners and communities to rebuild in the path of the next flood?

While strongly concurring with their article, I would like to add some thoughts that should foster positive results. First, the flood recovery should not be a we/they situation. Many people, especially farmers behind agricultural levees, feel that rebuilding the levee is an all or none proposition. Not true. Farmers have historically accepted a certain risk of their crops being lost to the occasional flood in return for the high productivity of the rich floodplain lands. Many farmers have no levee protection or levees that overtop every 10 to 20 years and protect crops during the years in between.

From the farmers' standpoint, the risk has two parts: the occasional loss of crops in high floods and damage to houses and other buildings if levees are overtopped.

Farmers are also concerned that environmental groups want to change their farmland to protected wetlands. However, most of the opportunities for wetland restoration are not on the mainstems of the Mississippi and Missouri rivers, but along their tributaries. Therefore, prime agricultural land will probably remain so. All groups—urban, rural, and environmental—must commit to open communication to eliminate misunderstanding and work together to protect all parts of the region.

Second, the appropriate institution does not exist to address basin-wide issues and tradeoffs. There is still a need for information about floodplains, including systemic data on the impacts of levees, wetlands loss, and encroachments. And even if this information were available, no mechanism, short of federal legislation, exists to put the results into use in the most cost-effective and environmentally sound manner. I would argue that the federal government should not make the decisions or row the boat. In the best manner of "reinventing government," it should steer the boat by setting some broad goals and helping estab-

lish the Federal Emergency Management Agency. Some believe that the National Flood Insurance Program, which takes in more premiums than it pays in claims, indicates that the federal program must be strong enough. This conclusion ignores the added money that the federal government pays out in disaster relief. For example, in this flood, less than \$100 million will be paid in flood insurance, but the disaster aid approved by Congress will exceed \$6 billion.

The Unified National Floodplain Management Program referred to by Myers and White is one step toward integrating the various floodplain and disaster-relief policies. It must be encouraged at the highest level of the administration and Congress.

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Should the federal government continue to subsidize heavily levees and other structural flood-control works when nonstructural floodplain management techniques may, in some circumstances, be more cost-effective?

These risks can be addressed by compensating farmers when levees designed to overtop at a 20-year event are overtopped. The compensation could probably come from the urban areas, where the flood storage on farmland saves residents the costs of building and maintaining bigger levees. Also, farmers need help in protecting farm buildings from higher floods by relocating buildings out of the risk zone, if feasible; by elevating the key structures on fill; or by constructing ring levees like those used on the Red River in North Dakota.

The farmers and nearby urban dwellers must view these changes as a win/win situation. Each group needs the other, and a balance must be struck for the groups to live in harmony. Third-party brokers may well be necessary to facilitate the payment of compensation, and it would seem appropriate that the brokers be the states.

lish an institution to address basin-wide issues. That institution should be led by the states, through creating compacts or strengthening the state-run Upper Mississippi River Basin Association and the Missouri River Basin Association, which may well require federal incentives and disincentives.

We have seen the results of about 100 years of federal government decisionmaking about these mighty rivers. It is time the states stepped in to assume responsibility for managing these valuable resources.

Finally, the federal government also must integrate its disaster policy and flood-damage reduction policy. As long as Congress continues to provide generous disaster relief, it cannot allow other policies and programs that result in more at-risk development to continue. Not only is there a conflict in goals among agencies, but there is conflict within the lead emergency agency,

MARY FRAN MYERS'S AND Gilbert F. White's excellent article concerning the challenge of the 1993 Mississippi floods effectively captures and summarizes the discussion in two workshops that the Association of State Wetland Managers and the Association of State Floodplain Managers conducted in St. Louis, Missouri, on 30 and 31 August 1993 and 27 to 29 September 1993. More than 300 participants representing 60 organizations from throughout the upper Mississippi and Missouri river basins attended these workshops.

Much of the discussion focused on the rebuilding of an estimated 6,000 miles of overtopped or breached levees. In many respects, however, the focus on rebuilding the levees brought several broader issues into play. For example, should the federal government continue to subsidize heavily levees and other structural flood-control works when nonstructural floodplain management techniques—such as the creation of greenways and floodplain parks, the relocation of flood-damaged structures, and flood-proofing—may, in some circumstances, be more cost-effective not only in reducing flood losses but also in meeting a broad range of other societal needs, such as pollution control, recreation, waterfront renewal, and restoration of fisheries and wildlife and waterfowl habitat? Should post-flood response and recovery efforts focus only on the severely damaged areas behind the breached or overtopped levees, or should these efforts also take into account a long-term view of the river basin as a whole, including the many tributary areas? The source of the flood waters for the summer's floods was in the tributary areas, and much of the flood damage occurred along these tributaries. Thus, the

key to controlling further increases in flood discharges and improving water quality lies also in the tributary areas. The issue is not whether the levees will be rebuilt (many will be) or whether past practices were right or wrong but whether costly, structural approaches to floodplain management should continue to be applied not only to the mainstem but also to these tributary areas.

For two centuries, the Mississippi and its tributaries have been viewed as the nation's work and transportation river. Use of the floodplain was of concern only to the floodplain's occupants. U.S. citizens are just beginning to realize that it is also the nation's greatest river, with vast, damaged, but restorable recreational, ecological, and historical resources that are important to the nation as a whole.

b/b

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The Association of State Floodplain Managers and the Association of State Wetland Managers have sent recommendations to the White House, to federal agencies, and to congressional committees based upon the two conferences. The associations recommend that federal agencies and Congress provide floodplain occupants and local governments with real alternatives for responding to flood damage and reducing future damages. Providing such alternatives would involve allowing more flexibility in the use of disaster assistance funds; allocating new funds to broaden the range of options; and providing additional technical assistance to help occupants take advantage of the full menu of options for reducing future flood losses. In addition, federal agencies should quickly gather important information concerning the costs of levee repair and the location of possible restoration sites to aid floodplain occupants, federal agencies, Congress, and the White House in their decisionmaking. The associations also recommend that additional planning and technical assistance be provided to states to help them develop comprehensive, multiobjective floodplain management programs (see the article by Jon Kusler and Larry Larson, "Beyond the Ark: A New Approach to Floodplain Management," in the June 1993 issue). Finally, the White House and Congress should treat this summer's flood as a prototype or case study that could suggest possible future directions for floodplain management and the restoration of aquatic ecosystems in other areas of the nation.

Jon Kusler
Executive Director
Association of State
Wetland Managers
Berne, New York

b/b

Editorial

For the many tens of thousands of people whose lives were profoundly disrupted by muddy waters, free floating propane tanks, silent communications, and the stench of flooded sewage works, not to mention the pesticide-rich muds that devoured their living rooms, the great Mississippi floods of June 1993 were a nightmare. Yet in a powerful way the river was simply seeking its rightful channels to the sea as it had always done before levees canalized its flow and properties impeded its natural meandering ways. From time to time, hard as it might seem to those in the firing line, nature has to assert its authority.

F. Mary Fran Myers

The thoughtful article by Gilbert White and ~~xxxx~~ recaptures history. Sixty years ago, as a young geographer on one of his first missions, Gilbert White warned of the folly of building levees on the basis of the property development that filled up the floodplain to justify the investment. No-body listened to a wise head on youthful shoulders. Nowadays the head is no less wise, but the shoulders bear the burden of experience. Yet the floods were as bad as any Mississippi floods, largely because the valleys are filled with economic activity unsuited to levee failure. And fail the levees must because no mighty river can, or should, be wholly canalized.

The Mississippi experience sets out a new agenda for floodplain management. A whole host of interconnecting policies and institutions are involved. These include the design and location of hazardous facilities such as chemical stores and compressed gas containers, the emergency backup arrangements for sewage treatment works and local generators for hospitals and schools, the restriction on toxic chemical build up in soils and groundwater, and the strict control of development in floodplains around natural channels as well as artificially incised canals. This involves a staggering degree of coordination at federal, state and local level involving an awesome variety of regulatory and developmental agencies covering the whole array of human occupation and economy. Managing big floodplains could lead to organizational entropy - being so complex in administration as to gridlock economic advance.

Meanwhile the insurance industry will begin to look again at hazards in a world where climate perturbation is becoming more commonplace. The traditional role for insurance as a lifeline in times of unanticipated emergency may have to be re-evaluated. Insurance may become the device for forcing compliance with building codes, forming programs and cooperative ventures on landuse planning and health and safety protection at community level. For generations the insurance industry has shied away from a governmental role. If organizational entropy is a serious impediment, the local cooperative ventures linking private initiative to collective action may emerge as a feasible alternative. Meanwhile, all rivers should be given some room to flow naturally. After all that is what they were designed to do.

--TIMOTHY O'RIORDAN

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maine
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**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 \$22.3 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:

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 standardize 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.
4. 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.
5. Priority should be given to projects where property owners voluntarily elect to participate.
6. Depending on the needs of the community or property owner, amounts paid for structures acquired with Federal funds should be based on a variety of considerations, including pre-flood and/or post-flood values, relocation assistance available, and the tax consequences of acquisition.
7. 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.
8. Wherever 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.
9. Financing of levee repairs is being coordinated closely with relocation efforts to ensure that these two processes are not in conflict.
10. Rental assistance for displaced tenants of acquired property is available through FEMA's Disaster Housing program.

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 Washington.

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.

y Federal Programs For Property Acquisition, Relocation, and Elevation

Federal Emergency Management Agency (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. The amount of funding available is based on 10% of the estimated Federal share for permanent repair of public facilities and infrastructure. FEMA estimates that a total of \$22.3 million will be available to the nine affected States for this program. New legislation has been introduced in Congress which would increase the Federal contribution for this program to 75 % of project costs, and increase the available funding to 15 % of all disaster assistance grants (approximately \$105 million for the nine Midwest disasters).
- 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 (Funds available through the Disaster Relief Fund) 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 \$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 (PA) program generally provides assistance (90% Federal contribution from the Disaster Relief Fund) to States and local governments for

permanent repair of public facilities and infrastructure. PA 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.

Department of Housing and Urban Development (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. States and some entitlement communities are receiving an additional \$200 million from the Supplemental Appropriation Bill, 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** for disaster assistance provides grants to States, larger cities, urban counties, and consortia for permanent housing for low-income persons. Allocations are based on a formula considering housing damage in the flood areas. Individuals receiving assistance must be low-income (80% of median income). The assistance may be provided in the form of loans or grants for housing for homeowners, homebuyers, or renters. It may be used for new construction, rehabilitation (including elevating housing), acquisition of housing, or for tenant-based rental assistance. \$50 million was provided in the Supplemental Appropriations Bill. The Bill authorized waiving HOME Program statutory and regulatory requirements. This authority was used to waive application requirements and numerous other program requirements to streamline the program.

Small Business Administration (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 to homeowners for up to \$100,000 for real estate and up to \$20,000 for personal property; to renters for up to \$20,000 for personal property; and to businesses

\$1,500,000. SBA loans may also be used to refinance existing mortgages in some instances.

Farmers Home Administration (FmHA) 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.
- FmHA can assist existing borrowers to sell their substantially damaged homes as chattel to be removed from the site in exchange for FmHA agreement to forgive any loan balance when the vacant lot is deeded to the local government with restricted covenants. If this is not possible, FmHA can acquire the property by conveyance, conduct sealed bid (or other disposal method) for sale of the house as chattel to be removed from the site, and deed the property to the local government with restrictive covenants. Debt settlement for any remaining debt could be completed after considering borrower's assets and ability to pay any outstanding balance.

United States Army Corps of Engineers (USACE) Programs:

- The USACE does not have authority to relocate or elevate flood-damaged structures in lieu of levee repair. However, the USACE normal water resources program does allow the Corps to study the feasibility of a flood control project. The feasibility study must include an investigation of the alternative of relocating homes out of the floodplain or elevating the homes in lieu of structural measures. The projects resulting from

feasibility studies must be authorized by Congress. This is a lengthy process, up to 15 years from start to finish. The Section 205 Program circumvents the Congressional authorization process, but the Federal limit is \$5 million, and these projects take several years to complete.

Economic Development Administration (EDA) Programs:

- The EDA will make grant awards to assist communities, industries, and firms, adversely impacted by the Midwest floods to assist in the long term economic recovery of the affected area. The Administration has received approximately \$100 million through the supplemental appropriation for its programs in the affected communities in the Midwest. In general, EDA will use its existing procedures for processing proposals and applications for disaster recovery assistance as outlined in EDA's annual Availability of Funds Notice published in the Federal Register of January 11, 1993, Volume 58 Number 6. Types of available assistance include: economic recovery strategy grants to help local communities develop a comprehensive recovery plan and follow-on implementation projects; and implementation project grants.

Brian Burke

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4 pages w/cover

From:

Doug Plasencia

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Thanks for the mtg. last week.

The Following is F.Y.I.

Doug



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November 10, 1993

Mr. Will Stelle
The White House
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Dear Mr. Stelle: *Will:*

Per our discussions last week the following is a quick summary of issues in the flood recovery.

1. Issues with HUD/CDBG

a. We understand that resolution of the pre vs. post disaster value of structures and the use of Uniform Relocation Act benefits is being pursued. While we are not sure at this time if this will be resolved satisfactorily, we are pleased with the quick progress since we met last Friday. Thank you for your role in moving this issue along. We believe that HUD's reconsideration and modification of their policy will tremendously improve the delivery of federal programs in the recovery zone. If we hear of further break down in this policy as it is crafted or as it is delivered to the field, we will keep you apprised.

b. States are reporting variability in the use of CDBG money. Many states are reporting that there are policies prohibiting the use of this money for mitigation; that mitigation is considered an "enhancement". This means that these dollars, if used in the recovery, are

Mr. Will Steele
The White House
Office of Environmental Policy
November 10, 1993
page two

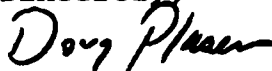
being used to restore structures to pre-flood at risk conditions. Minnesota currently does not interpret mitigation as an enhancement and is moving forward with using CDBG money for mitigation. In the past CDBG money has been used for mitigation activities in other disasters in other states. Not using CDBG funds in a way that promotes mitigation is poor policy and needs modification.

2. States are reporting that federal agencies are not targeting the supplemental flood appropriations to flood related activities. For example certain programs have reported they could use these funds within the declared County yet they would not need to directly use these funds for flood recovery activities. We are also hearing reports that hoops are being posed that tie qualification to non-flood related criteria. Dependent on the federal, state and local interface, these types of requirements at best will be "winked at" by those involved, and at worst will be dogmatically applied, leading to little application of these funds for recovery related activities. We believe there needs to be a clear message from the White House to all agencies that the priority use of the supplemental appropriations will be for mitigation and other flood recovery related activities. For the magnitude of the flood, the pot of money for recovery is small, the holes bleeding the pot for non-mitigation activities need to be plugged.
3. The multiple White House Task Forces on the flood lack true state partners. We appreciate the rules to which these task forces must conform, but one of the problems with our existing federal flood protection policies is that we lack sufficient local-state-federal partnership on these issues. In order to achieve a reduction in flood damages, and a reduction in demands on federal programs and disaster dollars, state and local government will have to assume more responsibility for floodplain management and mitigation activities. Ultimately, we believe this will be the conclusion of these task forces, and the conclusion of other subsequent task forces. If state and local government are not part of this process, resulting policy will be prone to attack as another unfunded mandate. However, if State and Local government as a partner can help shape this policy, there will be a better chance these policies can be implemented.

Mr. Will Steele
The White House
Office of Environmental Policy
November 10, 1993
page three

These are the pressing issues at the moment. Larry and I are working on developing recommendations for staffing of the various task force. We hope to be in contact soon with these names and other issues as the evolve.

Sincerely,



Doug Plasencia
Chair

cc: Brian Burke, White House Domestic Policy
ASFPM Board

BRIEFING ANNOUNCEMENT

MAGNITUDE OF MIDWEST FLOODING LATEST HYDROLOGIC INFORMATION FROM THE U.S. GEOLOGICAL SURVEY

**MONDAY, OCTOBER 4, 1993 AT 10:00 am
MAIN INTERIOR BUILDING - ROOM 7000 A & B
18th and C Streets NW
Washington, DC**

The Interagency Committee on Flood Control Alternatives invites you to a briefing on current findings from the U.S. Geological Survey's (USGS) response to the extensive flooding in the midwest.

During this spring and summer, record flooding occurred throughout the Upper Mississippi River basin. The combined effect of this flood in terms of property damage, disruption of commerce and personal trauma is unlike any flood disaster in U.S. history. Property damage associated with the flood is expected to exceed \$10 billion, and millions of acres of productive farmland were under water for weeks of the growing season. The Mississippi and Missouri rivers were closed to river traffic and transportation was disrupted throughout the region. A levee failure on the Raccoon River in Des Moines, Iowa left the City without drinking water for 19 days.

Throughout the flooding, USGS continued to collect hydrologic data which are now being analyzed to document the magnitude of the flooding and improve understanding of its causes and its physical, hydrological and environmental effects.

Now that the floodwaters are receding and cleanup and restoration work is underway, questions are being raised about appropriate management of the river system. Wise decisions about the future of the Upper Mississippi River Basin require scientific information and field data to answer questions such as: How does the 1993 flooding compare to historic floods in the midwest? How are river channels likely to change as a result of the floods? What effect has the flooding had on transport of contaminants that impair water quality?

It is hoped that this information and continuing USGS data collection and analyses will assist Congress, other Federal agencies, and state and local governments to make informed decisions about policy questions relating to future river management.

Nick Melcher, USGS District Chief in Iowa, will provide an overview of the climate and other factors which caused the flood, and describe its progress down the Mississippi River valley. Additional information will be presented on the scouring effects of the flood on river channels at bridges, the extent of levee breaks and resulting over-bank flooding of agricultural and other areas, and anticipated changes which may, at least in the short run, affect the way the river flows.

Gail Mallard, Chief of the Toxic Substances Hydrology Program at USGS, will discuss the conveyance of contaminants by the flood waters, the loads and concentrations of those contaminants, and the possible impacts of the contamination of shallow aquifers. USGS water quality specialists have extensive research experience on herbicide contamination in the midwest farm belt, and are continuing to collect water quality samples to understand how the flooding and associated distribution of sediments may affect the quality of drinking water and water resources in the Midwest.

Post-It™ brand fax transmittal memo 7671		# of pages > 2
To <i>Brian Burke</i>	From <i>Toni Johnson</i>	
Co. <i>Kathi Way</i>	Co.	
Dept.	Phone # <i>703 648 6810</i>	
Fax # <i>456-7028</i>	Fax # <i>648 6693</i>	

The first two reports in a series being published as USGS Circular 1120, on technical aspects of the flooding, will be available for distribution at the briefing. These include "Flood Discharge," describing the magnitude and frequency of the flooding in perspective with previous floods; and "Precipitation," describing weather patterns and higher-than-normal precipitation preceding the flooding. A third circular on "Water Quality" is currently being printed, describing the conveyance, loads and concentrations of contaminants carried by flood waters. The USGS plans to publish additional chapters of the flood circular over the next several weeks and months, with more in-depth technical hydrologic analyses, including longer-term flood volumes, reservoir volumes, sediment transport, channel scour, and analysis of changes to the river channels. Copies will be made available to members of the Interagency Committee.

DISTRIBUTION LIST:

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cc: Will Stelle WH-OEP
Brian Burke DPC ←

**SHORT-TERM
ENVIRONMENTAL FLOOD RECOVERY
ALTERNATIVE AGENCY PROGRAMS**

Department: _____

Agency: _____

Program Name: _____

Agency POC: _____ **Phone:** (____) _____

Program Function (Describe):

Applicability (Describe):

Resource Deliverable: __ Grant __ Loan __ Direct __ Tech. Assist. __ Other (Describe)

Program Target: __ Individual __ Business __ State __ Local Gov. __ Other (Describe)

Total Funding Source/ \$ (mil): ____ None ____ Emergency Suppl. ____ FY 93 Carryover
____ FY 94 Basic Program ____ Other (Describe)

Eligibility Requirement(s):

Cost Sharing Requirement(s): ____ None ____ Other (Describe)

Repayment Requirement(s): ____ None ____ Other (Describe)

Application Procedure(s):

Application Time Line:

Programmatic/Funding Constraint(s):

Other Comments:



EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF MANAGEMENT AND BUDGET
WASHINGTON, D.C. 20503

September 29, 1993

NOTE TO: SEE DISTRIBUTION LIST

FROM: ~~BRUCE LONG~~

SUBJECT: Environmental Flood Recovery, Program Summaries

We have not made sufficient progress in the past several weeks in either identifying or describing attractive alternative agency programs. It is extremely important that you bring hard copies along with a computer disk (in Wordperfect) of your agency programs to the task force meeting now scheduled for Friday, October 1st, at 10:00 in room 248 OEOB. These programs can either be in the emergency supplemental or in the base.

The program summaries that you bring should be modified using the attached format. Key items include the agency contact (should be a person at the lowest local level that can both explain the program and answer questions about resource availability at the local level), application procedures and time line (should be sufficiently detailed that the reader knows how to access the resources and whether the resources will be available within a timeframe that meets the applicant's needs), eligibility requirements, and programmatic/funding constraints (whether there are dollar/acre or other similar limits).

These descriptions must be written with the user in mind -- the DFO review teams, State representatives, and the general public. They should enable the reader to understand what tools are available to achieve the various alternatives we are promoting: wetland restoration, flood easements, relocation of farm structures, or relocation of urban structures.

I am establishing a sub-task force made up of agency representatives (point of contact) to work collectively on the alternative programs catalog. Immediately following Friday's meeting, I would like to meet with each agency's point of contact, in room 8026 NEOB, to begin work on this sub-task force. The point of contact should have access to whatever information resources are necessary to prepare the required material. The task force will meet every business day at OMB until the catalog is completed. Our goal is to complete the catalog by October 7th.

Thank you for your cooperation. I will be calling each of you to discuss this new summary and process. However, if you have questions, call Jim Kazel or me at 202-395-4590.