

Christine-----

The attached is my best attempt at creating a process for dealing with the impact of the flood in total. I will not be a work tomorrow, but will be available by phone at 302-834-0789.

I met with the State Reps today at the Hall of the States. They were supportive of the idea of a regional Ombudsman who would work on their behalf. USDA remains unconvinced. I would like to discuss the pluses and minuses when you call. I would very much appreciate your comments and suggestions. I will be available early so don't hesitate to call. We need to get some process started quickly. Also, I continue to think we need to spend some time on creation of a communications plan. Hope to talk to you tomorrow.

Kathi

To: Christine Varney

From: Kathi Way

Re: Flood Recovery Plan

Date: August 4, 1993

Following discussions with USDA, OMB, and other Cabinet Agencies, I am recommending the following process to ensure a coordinated approach for flood recovery that incorporates the emergency and short-term work with the longer-term policy discussion. The proposal is based on work currently underway under the leadership of OMB and OEP.

The process includes creation of 10 working groups, established by program area, chaired by the agency with primary responsibility and/or interest. The purpose of each group is to establish a plan for delivering services to the affected areas within the overall policy goals established. It is expected the work will take 3-4 weeks.

The 10 working groups include:

LEVEE RECONSTRUCTION AND WETLANDS: Co-Chairs, Katie McGinty and T.J. Glauthier.

The format used by this group, which is already underway is the basis for the remaining groups and has been attached for your review and comment.

AGRICULTURE/FARMS/ANIMAL HEALTH AND SAFETY: Co-Chairs, Dept. of Agriculture and Interior. Issues to be included: Re-establishment of farming communities, financial assistance, coordination with levee and environmental policies, and the protection of wildlife, farm animals, and domestic animals. Other agencies to be included: OEP, EPA, Corp of Engineers, FEMA, DPC.

INSURANCE: Chairs, USDA and DPC. Issues to be included: Future policies with regard to crop and flood insurance. Other agencies to be included: Corp of Engineers, OMB, and FEMA.

FLOOD PLAINS: Chairs, DPC, Farmer's Home and HUD. Issues to be included: Rebuilding in the flood plains, buyout assistance, future use of flood plains. Other agencies to be included: FEMA, Corp of Engineers, OMB, and USDA.

TRANSPORTATION (Air, Rail, Water, Roads, and Bridges): Co-Chairs, DOT and OMB. Issues to be included: Air, Rail, Water, Roads

(Federal and Local), and Bridges (Federal and Local). Other agencies to be included: FEMA, Corp of Engineers, DPC.

EDUCATION/FAMILY SUPPORT/ELDERLY: Chairs, HHS and Education. Issues to be included: School Readiness, Mental Health counseling, personal assistance for the elderly. Other Agencies to be included: DPC, OMB, and DOT.

PUBLIC HEALTH: Chairs, HHS, and DPC. Issues to be included: Immunization, Vector Control, Communicable diseases. Other agencies to be included: EPA, DPC, OMB.

HAZARDOUS WASTE: Chairs EPA and OMB. Issues to be included: Garbage collection and disposal, asbestos contamination, landfills, superfund sites, oil spills, leaking underground storage tanks. Other Agencies to be included: HHS, USDA, OMB, DPC, and OEP.

COMMERCE: Chairs, SBA and Labor. Issues to be included: Financial impact on businesses located away from flood areas, Unemployment Compensation, Priority building, Public Assistance, Financial impact on businesses in the designated areas. Other agencies to be included: HHS, USDA, DPC, OMB.

WATER INFRASTRUCTURE AND QUALITY: Chairs, EPA and OMB. Issues to be included: Rebuilding water infrastructure and assuring water quality. Other Agencies to be included: FEMA, RDA, HUD, EDA.

Neither the membership nor the content of the work groups outlined here is meant to be a closed list. I expect the issues may change as the members meet and the membership may contract/expand as work begins. I would additionally recommend representatives from the states be invited to participate on these groups and carry responsible for communicating with the Governors' offices.

The intent is to establish these work groups and begin work early next week. Their recommendations would be forwarded to Secretary Espy and Senior staff at the White House for review and comment before submission to the Intergovernmental Task Force being formed.

CC: Carol Rasco
Oleta Fitzgerald, USDA

ENVIRONMENTAL FLOOD RECOVERY
INTERAGENCY WORKING GROUP

Co-Chairs	Katie McGinty, TJ Glauthier
Staff Chairs	Keith Laughlin, Bruce Long
Purpose	To evaluate and help implement alternative options to full levee repair reconstruction that will enhance flood control and environmental values in appropriate situations in the course of recovery from floods, with an immediate focus upon the midwest floods of 1993
Work Products	Short term (4 weeks?): first round "guidance" to the Corps, SCS and FEMA regarding the types of options-for reconstruction or other actions that should be considered in field disaster centers as individual applications are evaluated, including identifying the types of situations and options that may be most appropriate candidates for alternative action Longer term (2-3 months?): Formal guidance, developed in conjunction with the relevant agencies, for the Corps, SCS and possibly FEMA, regarding the ways in which alternative options for levee reconstruction should be considered, including: relevant entry point(s) in each agency's decision process, types of options to consider, key factors for consideration, and types of financial analyses that should be utilized
Agencies	White House: OEP, OMB, DPC, NEC, OSTP Agencies: Corps, SCS, EPA, DOI, FEMA
Non-federal Groups	Farm community, environmental groups, Hill staff, technical experts

August 9, 1993

TO: Kathi Way

FROM: Oleta Garrett Fitzgerald 

(In each of the task forces, there could be representation from DPC, OMB, USDA, and the Hall of States.)

PROPOSED TASK FORCES FOR REVIEW OF 1993 LONG RANGE FLOOD DISASTER PLANNING:

LEVEE RECONSTRUCTION, WETLANDS AND FLOOD PLAIN MANAGEMENT

Army Corp of Engineers, Chair
Soil Conservation Service
Environmental Protection Agency
Forest Service
Department of Transportation
Department of Interior
FEMA

PRODUCTION AGRICULTURE AND ANIMAL HEALTH AND SAFETY/WILDLIFE

Agricultural Stabilization and Conservation Service, Chair
Farmers Home Administration
Animal Plant Health Inspection Service
Federal Grain Inspection Service
Federal Crop Insurance Corporation
Forest Service
Soil Conservation Service
Small Business Administration (Have provided assistance with emergency)
Environmental Protection Agency (land usage after water recedes)

HOUSING

Housing and Urban Development, Chair
Farmers Home Administration
Veterans Administration
Flood Insurance Program/FEMA
Department of Energy (weatherization/repair programs)
Health and Human Services (Commission on Aging)

P.2 - TASK FORCE PLAN

COMMUNITY FACILITIES

Housing and Urban Development, Chair
Rural Development Administration
Small Business Administration
Veterans Affairs
Health and Human Services (Headstart, etc.)
Department of Education
Federal Bureau of Prisons
Flood Insurance Program

WATER SUPPLY, TREATMENT, WASTE (WITH SPLIT OUT FOR HAZARDOUS WASTE)

Rural Development Administration, Chair
Housing and Urban Development
Economic Development Administration (Commerce)
Department of Interior
Health and Human Services (Many wells are health dept. monitored)
Environmental Protection Agency
Department of Transportation (Hazardous waste)
Rural Electric Administration
National Rural Water Association

TRANSPORTATION/BRIDGES AND ROADS

Department of Transportation, Chair
National Governors Association
National Association of Counties
Coast Guard
Forest Service (bridges)
Housing and Urban Development
*(Railroads and Airports are covered)

ENVIRONMENTAL (Being handled by EPA)

p. 3, TASK FORCE PLAN

COMMERCE, BUSINESS DEVELOPMENT OR REDEVELOPMENT, EMPLOYMENT

Department of Commerce, Chair (EDA)
Rural Development Administration
Small Business Administration
Department of Labor
Housing and Urban Development
Department of Transportation (Maritime, Railroads, FAA)
Extension Service
Agricultural Stabilization and Conservation Service (Elevators)
Animal Plant Health Inspection Service
Federal Grain Inspection Service
Federal Crop Insurance Corporation
Flood Insurance/FEMA

MEDICAL

Health and Human Services, Chair
Extension Service
Department of Education (immunization issue)
Environmental Protection Agency
Veterans Affairs
Food and Consumer Services
Housing and Urban Development
Food Safety Inspection Service
Administration on Aging (HHS)

EDUCATION

Department of Education, Chair
Department of Transportation
Corp of Engineers
Food and Consumer Services
Housing and Urban Development
Department of Energy

P. 4, TASK FORCE PLAN

PUBLIC WORKS

Rural Electric Administration (Rural Telephone)
Housing and Urban Development
Department of Interior

PUBLIC AFFAIRS - COMMUNITY EDUCATION

USDA and FEMA Public Affairs, Chair
Public Affairs Directors all Agencies
Cooperative Extension
Farm Aid
Church Group Involvement



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 *T.J. Glauthier*

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 *William Smith for EM*

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.

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.

**Wetlands Restoration Meeting
(August 25, 1993)**

<u>Name</u>	<u>Org.</u>	<u>Phone</u>	<u>Fax</u>
FEDERAL AGENCIES			
Richard Krimm	FEMA	202-646-3692	202-646-4060
Jane Bullock	FEMA	202-646-3436	202-646-4291
Frank Thomas	FEMA	202-646-2717	202-646-3914
Larry Zensinger	FEMA	202-646-3685	202-646-3304
Stanley Genega (Gen)	Army-CE	202-272-0094	202-272-8992
Ed Dickey	Army	703-697-4671	703-697-3366
Bob Stearns	Army	202-272-0126	202-504-4389
Michael Davis	Army	703-695-1376	703-697-3366
Mollie Beattie	DOI-FWS	202-208-7400	202-208-6965
Michele Altemus	DOI-FWS	202-208-4717	202-208-6965
Russ Earnest	DOI-FWS	202-208-4646	202-208-6916
Jim Douglas	DOI-FWS	202-208-7963	202-208-5078
Michael Huerta	DOT	202-366-5781	202-366-7952
Joe Canny	DOT	202-366-4540	202-366-7127
Richard Sanderson	EPA	202-260-5053	202-266-0129
David Davis	EPA/OWOW	202-260-7166	202-260-6294
Bob Wayland	EPA-OW	202-260-7160	202-260-6294
James Lyons	USDA	202-720-7173	202-720-4732
Rick Grand	USDA-NRE	202-720-7173	202-720-4732
John Maynor	USDA	202-720-6643	202-720-8819
Michael Derian	USDA	202-720-6643	202-720-8819
Oleta Fitzgerald	USDA	202-720-0619	202-720-8819
Edgar Nelson	USDA-SCS	202-720-4630	202-720-7710
Karl Otte	USDA-SCS	202-720-9574	202-690-1462
Gary Margheim	USDA-SCS	202-720-4527	
Gene Morrison	HUD	202-708-1547	202-401-6725
Hawkins	DOC	202-482-4067	202-482-0995
Bernard Kulik	SBA	202-205-6734	202-205-7728
Al Judd	SBA	202-205-6734	202-205-7728

EXECUTIVE OFFICE OF THE PRESIDENT

John Gibbons	OSTP	202-456-7116	202-395-3261
Mark Schaefer	OSTP	202-456-6202	202-395-1571
T.J. Glauthier	OMB-NRD	202-395-4561	202-395-4639
Ron Cogswell	OMB-NRD	202-395-4586	202-395-1067
Bruce Long	OMB-NRD	202-395-4590	202-395-4652
Scott Cameron	OMB-NRD	202-395-6822	202-395-6899
Mark Weatherly	OMB-NRD	202-395-3446	202-395-4941
Stuart Kasdin	OMB-NRD	202-395-3446	202-395-4941
Katie McGinty	WH-OEP	202-456-6224	202-456-2710
Keith Laughlin	WH-OEP	202-456-6224	202-456-2710
Will Stelle	WH-OEP	202-395-6533	202-395-2710
Brian Burke	DPC	202-456-2995	202-456-7028
Kathy Way	OPD	202-456-7777	202-456-7028
Ken Ryder	OMB-HTF	202-395-4516	202-395-6889
Steve Redburn	OMB-HTF	202-395-4610	202-395-1037
Chris Heiser	OMB-HTF	202-395-4610	202-395-1037
James Kazel	OMB-NRD	202-395-4590	202-395-4652

**MODEL FOR ACTION -- INTERAGENCY ALTERNATIVE FLOOD CONTROL
COMMITTEE**

A) Interagency Coordination

Change the name of the Levee Reconstruction and Wetlands Committee to the **Alternative Flood Control Committee.**

Break up the Alternative Flood Control Committee into five subcommittees:

- 1) Economic Analysis
- 2) Emergency Priorities
- 3) Alternative Flood Control Science
- 4) Key Agency Programs and Authorities for Coordination of Disaster Mitigation Teams
- 5) Data Needs

(Participation should not be limited to Federal Agencies).

B) Coordination with NGOs

C) Coordination with States and State Compacts

We need a Comprehensive River Plan.

The River Floodway Concept - A Reasonable and Common Sense Alternative for Flood Control

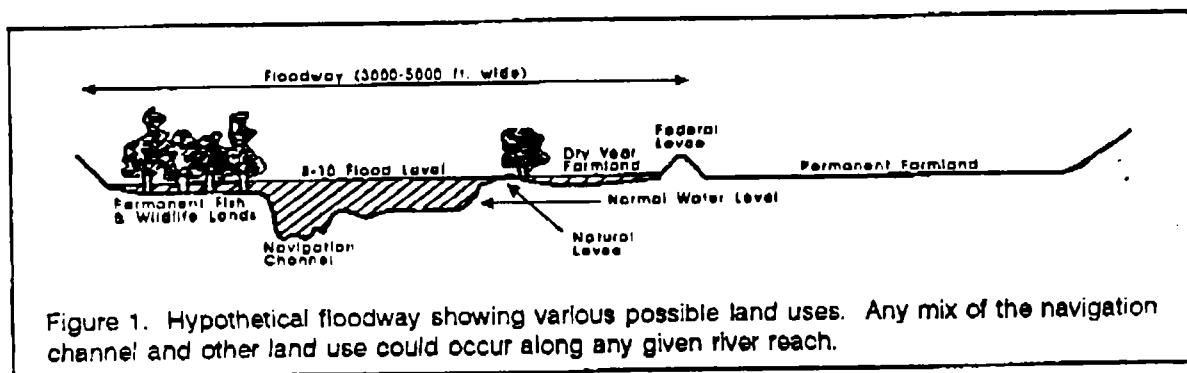
Prepared by

Jerry L. Rasmussen
Large River Fisheries Coordinator
and
Jim Milligan
Fisheries Resources Office Supervisor

Region 3
U.S. Fish & Wildlife Service
Columbia, MO 65293

The lengthy quotation which follows was taken from the: Missouri Basin States Association. 1983. Missouri River Flood Plain Study - Final Report, Billings, MT. It builds a good case for implementing a floodway on the Missouri River, and elsewhere, in response to the "Great Flood of 1993". Figure 1, shown below, captures the concept.

"The need for increased levels of flood plain management along the Missouri River has been recognized by state and federal water resource planners and managers for many years. Development of the flood plain along 753 river miles, covering nearly 2 million acres in five states (South Dakota, Iowa, Nebraska, Kansas, and Missouri) has given rise to a wide variety of management problems. Of fundamental concern to flood plain planners and managers, is the slow but continual loss of floodway conveyance capacity and evidence that river stages are increasing during periods of flooding. This loss has been attributed to bank stabilization and navigation structures, accretion of land in and along the channel, construction of agricultural and other private levees within the floodway, and construction of facilities in the floodway that are related to public, commercial, or industrial development. The weak, fragmented and inconsistent legal and administrative framework has been another major concern. Authority for management of the flood plain is divided vertically among various levels of governments, geographically by five states, and functionally through various state and federal agencies which makes it difficult to achieve a coordinated, compatible approach.



'In the study area, encroachment takes the form of residential, commercial, industrial and farm structures, transportation and utility systems, levees and river control structures, and recreational facilities. Throughout the study area, the bank stabilization project has been the most pervasive improvement which has reduced the carrying capacity of the channel and floodway. Through it, the overall channel width has been progressively narrowed, and numerous secondary channels (chutes) have either been silted in or closed off by successional processes into forested or other wetlands. The lateral dikes induce increased hydraulic resistance along the banks and have also narrowed flow width. Furthermore, the channel areas land ward of the protruding dikes have progressively filled, creating accretion land. This land is then converted to crop land, which then is often protected by levees.

'Analysis of discharge/stage trends plotted over the past 30 years provide an indication of the effect of encroachments on the flow characteristics of the channel and adjacent over bank areas. These curves between Omaha and the mouth indicate rotation, with stages shifting upward in the higher discharge range. In Reach 2, the Nebraska City gaging station is illustrative. At normal flows of 30,000 to 40,000 cfs, stages have been constant over time. At 100,000 cfs, however, there has been a 4 to 5 ft. rise since the 1930's. In addition, channel capacity has been reduced from 150,000 to about 90,000 cfs. At St. Joseph in Reach 3 a similar trend was observed, although a channel cutoff does confuse the situation somewhat. In Reach 4, for conditions near bankful at 200,000 cfs, rises of 2 to 3 ft. are indicated at the Waverly and Boonville gaging stations. At Hermann, while no clear indication of a rising trend occurs at flows 300,000 cfs or less, a 3 to 4 ft. increase is indicated at discharges of 400,000 to 500,000 cfs. Near the mouth of the river, the Missouri River Flood Plain River Stage and Levee Inventory Study did not analyze stage/discharge trends- or project estimated effects of the 1844 flood onto today's condition. However, data in the 1974 Baseline (Vol. II) study by the Corps of Engineers, Kansas City District, indicates that the 1844 flood would now crest about 10 ft. higher at Boonville and 12 ft. higher at Hermann. An unpublished river stage/discharge study by C.B. Belt, Washington University (1980) provides data at St. Charles. It was estimated that a 5 ft. stage increase would occur under a bankful discharge of 200,000 cfs, while a 7 to 8 ft. stage rise would occur at 500,000 cfs.

'Historically the Pick-Sloan plan and the bank stabilization and navigation project have been the catalyst for development along the Missouri River. They did not, however, provide a comprehensive approach to flood plain management or development. The Pick-Sloan Plan was authorized to provide a 3,000-ft. flow way from Sioux City, Iowa to Kansas City, Missouri and a 5,000-ft. flow way from Kansas City to St. Louis. The concept was structural in approach as Congress did not contemplate supplemental regulation. While the plan progressed in the 50's and 60's, it ground to nearly a standstill in the 70's, largely due to economic considerations and lack of local acceptance by levee districts and a few landowners along the riverbank who would be adversely affected. By contrast, the bank stabilization project did not encounter difficulties and was completed in 1980.

'As an operational flood plain management tool, the Pick-Sloan Plan is no longer considered viable because: (1) adequate returns in terms of flood loss savings do not

exist for structural measures, and (2) the NFIP (National Flood Insurance Program) approach, nonstructurally oriented, is now being emphasized. The Pick-Sloan Plan utilized the concept of equal and opposite levee setback for flow way encroachment, or the idea that equal amounts of land on opposite sides of the river would be dedicated to flow way purposes. Under this concept, the property owners can easily determine how far they can encroach into the flood plain as a levee defines the floodway border. The bank stabilization project was not conceived to provide either flood plain management or flood control benefits. However, it did stabilize the banks, prevented the destruction of considerable development from bank erosion, and has made the flood plain appear a safer place for development"

The Pick Sloan Plan which created the large Missouri River reservoirs in the Dakotas and Montana thus also authorized a floodway from Sioux City, IA to the mouth at St. Louis, MO. As stated in the above quotation from the Missouri Basin States Association, this floodway was not completed, in large part, because of landowner opposition. These same landowners will now (in 1993), undoubtedly look to the government to assist in the recovery of private lands and property that perhaps could have been protected had the proposed Pick-Sloan floodway been implemented.

The following questions thus beg to be answered:

(1) Should society pay flood damages to landowners who are reported (by the Missouri Basin States Association) to have prevented completion of the Pick-Sloan floodway?

(2) Should the Pick-Sloan floodway be implemented now to prevent future losses?

The latter seems to be the "common sense approach" to future flood damage reduction. Large portions of the Missouri River floodplain between Sioux City and St. Louis experienced extensive flooding in 1951, 1952, 1973, 1984, and 1986; and now again in 1993. When is enough, enough!

Pick-Sloan should thus be re-evaluated in light of the current flood, environmental considerations, increasing flood stages, and escalating damage claims. Implementation of the Pick-Sloan floodway would not only provide flood control benefits, but significant benefits to fish and wildlife species; possibly even heading off the impending listing of endangered species.

The floodway (Figure 1) authorized by Pick-Sloan between Sioux City, Iowa and Kansas City, Missouri was 3000 ft. wide. Average width of the Missouri River channel in that reach is 700 ft., leaving 2300 additional feet needed to complete the authorized floodway (in theory 1150 feet on each side of the river). This corridor, stretched over the 383 mile reach in question totals 106,857 acres in area. Pick-Sloan authorized a 5,000 ft. flood way from Kansas City to the mouth at St. Louis. Average width of the River channel in this reach is 1200 ft., leaving an additional 3800 feet needed to create the authorized floodway (in theory 1900 feet on each side of the river). This corridor stretched over the 367 mile reach in question totals 169,042 acres in area. Total acreage authorized for a floodway from the head of navigation, just above Sioux City, Iowa to the mouth is thus 275,899 acres. This would provide a significant amount of flood storage capacity.

Missouri River bank stabilization and navigation projects have caused the direct loss of 100,300 acres of aquatic and 374,300 acres of terrestrial habitat in the floodplain between Sioux City and St. Louis. Those losses have occurred in the 300,000 acres formerly covered by the natural river and an adjacent 364,000 acres of active floodplain erosion zone.

Channelization has also shortened this reach by approximately 127 miles (1980 USFWS Coordination Act Report). Much of this loss is attributable to accretion of land in formerly diverse floodplain habitat and its subsequent conversion to private land and intensive agriculture. The vast majority of this land is now also protected by levees which contribute to further floodplain encroachment, development and habitat losses.

Aquatic riverine habitat losses have directly impacted native Missouri River fishes. The pallid sturgeon is federally-listed as endangered and five other species (lake sturgeon, paddlefish, sicklefin chub, sturgeon chub and blue sucker) are C-2 candidates under review for listing. Many other native Missouri River fish stocks are severely depleted.

River biologists generally equate the current threatened status of these fish stocks to losses in quantity and quality of habitats such as sloughs, chutes, backwaters, braided channels, wetlands, etc. Isolation of the river from its floodplain through levee and dike encroachment and flow modification to eliminate the natural hydrograph (periodic seasonal flood pulses) have reduced nutrient and carbon inputs, while restricting access to seasonally flooded spawning and nursery habitat. The result is an expanding list of endangered, threatened and depleted fishes.

There are two essential elements to achieve optimum restoration and recovery of Missouri River fish stocks. The first of these is re-establishing some measure of the natural hydrograph which includes a spring flood pulse. The Corps of Engineers Master Manual review (currently underway) is looking at a large number of Missouri River operating alternatives. Some of these are environmental quality (EQ) alternatives which require implementation of a modified natural hydrograph.

The second essential element is to restore and re-create quantity and diversity of riverine habitats and insure access to seasonal habitats and nutrient inputs through overbank flooding. This can best be accomplished through implementation of a floodway concept (Figure 1) involving setback levees to provide floodway capacity as envisioned in the original Pick-Sloan Plan.

The estimated costs of implementing the floodway concept are great, but shrink quickly in comparison to the estimated \$12 billion dollars [reported by the St. Louis Post-Dispatch (8-6-93)] needed for damage recovery from the 1993 flood, and to the \$25 billion [reported by the Kansas City Star (7-17-93)] spent by the Corps of Engineers since 1927 to build the existing levees, dams, and channels along the Missouri River, Mississippi River and their tributaries.

Fee title acquisition of the entire Missouri River floodway would involve 275,899 acres at an estimated cost of \$231,755,160. Flood easements could be used in lieu of acquisition on some lands, thereby allowing it to remain in agriculture, but subject to periodic flood losses. Additional costs may be incurred for levee construction at the limits of the designated floodway.

Cost estimates are based upon recent acquisitions of \$1,100/acre for levee protected cropland, \$600/acre for unprotected cropland and \$300/acre for forest, wetland and shrub land. It is further assumed that approximately 60% of the acreage is in levee protected cropland, 20% is unprotected cropland and 20% is forest, wetland, shrub, etc.

A quarter of a billion dollar investment in such a floodway is thus a rather reasonable and insignificant one-time cost for future protection against repeating the estimated billions lost to this flood. The "Great Flood of 93" can provide a rare opportunity to serve the national interest by re-evaluating and pursuing the long overdue floodway alternative on the Missouri and other large rivers, while avoiding future human and economic loss. Many costly and pervasive problems could be resolved in this single, all-encompassing action.

Recurrent flood damages, economic losses and government disaster relief costs would be greatly reduced or eliminated. Many natural resource and endangered species issues could be resolved without the great expense and controversy of listing. Most of the economic values associated with the river such as recreation, water supply and hydropower would be unaffected or enhanced. Flood control would be enhanced, but there would be some loss of navigation benefits and agricultural production within the floodway. Some of this could likely be mitigated by providing for agricultural farming leases in dry years when water in the system does not occupy the entire floodway.

Implementation of the floodway concept also provides a grand opportunity to implement national objectives for biodiversity and ecosystem based management, while avoiding another of the costly, divisive and controversial "train wrecks" Interior Secretary Babbitt has referred to in reference to the spotted owl/developmental issue in the Northwest.

The current flood was, without a doubt a great human and economic disaster, however, if our leaders chose, the flood can also provide the stimulus necessary to focus public attention on an opportunity to get out in front of the flooding problem, and address many controversial issues at one time. Implementation of some form of the floodway can do just that. Strong, decisive leadership at state, local, and federal levels will be needed to make this happen!

PL 84-99 Rehabilitation Policy

- **Environmental Policy**
 - Conform to NEPA
 - Conform to Other Applicable Environmental Regs (i.e., Endangered Species Act)
- **Cost Share**
 - 80/20 Non-Federal Projects
 - 100/0 Federal Projects
- **Engineering and Maintenance Guidelines**
 - Must be flood control structure
 - Must be maintained

Deliberate Levee Cuts

- Not repaired under PL 84-99
- Exception for cuts which reduced damages/Corps Recommendation

● **Dewatering**

- Local Interest Cost
- May be reimbursable by FEMA

● **Secondary Levees**

- Not Eligible
- Exception for protection of human life

● **Betterments**

- Not eligible

● Retention of Flood Fight Measures

- Must be removed
- Exception for measures that contribute to structural integrity of unit (i.e., seepage berms)

REHABILITATION ALTERNATIVES

- **Cooperative Effort of Many Federal Agencies**

- EPA
- FEMA
- DOI
- USDA
- HUD
- SBA
- DOC
- DOT

- **Offers Alternatives to Rehab When**

- **Acceptable to Local Sponsor**
- **Not Big Increase in Cost**
- **Provides Flood Protection**
- **Meets Environmental Concerns**

DFO COORDINATION PROCESS

- Completed Reports Being Provided to EPA/F&WL Representatives for Immediate Review
- EPA/F&WL Will Be Provided Information on All Active Projects So That Their Alternative Review Can Be Initiated
- An Interagency Public Affairs Program Is Being Initiated

USACE DFO ACTIVITIES

- **Active Teams in IL, IA, MO (1-2 people)**
- **POCs for Other States**
- **Corps Projects Listed in DFO Database**
- **Completed Reports Have Been Forwarded to DFO Teams for Review**

● **Sponsor Notification**

- **Currently in Process of Notifying Sponsors**
- **Verbal Notification to be Complete by 25 Aug**
- **Written Notification to Follow**

APPLICATION PROCESS

- **District Office (DO) Receives Application**
 - Begins Assessment
 - Prepares Report
- **Concurrently DO Notifies DFO**
 - Other agencies consider options
 - Discuss with sponsors

APPLICATION PROCESS (Cont'd)

- **Report Is Unfavorable**
 - **DO Notifies Division Office**
 - **DO Notifies Local Sponsor**
 - **DO Notifies DFO**

APPLICATION PROCESS (Cont'd)

- **Report Is Favorable**

- Transmit to Division Office
- Transmit to DFO
- Other Federal agencies submit alternative solutions



**24
HOUR
CLOCK**

APPLICATION PROCESS (Cont'd)

- **Local Sponsor Decides "Fix Levee"**
 - Division approves report
 - District constructs

or

- **Local Sponsor Decides "Try Alternative"**
 - Division returns report to DO
 - Sponsor works with other agency on alternative

FAST TRACK PROCESS

- **Fast Track for Breached Levees When**
 - **Substantial Risk to Urban and Agricultural Properties**

● Fast Track Qualifications

1. Urban Levees
2. Agricultural with Some Urban Area
 - Risk of flooding > 5%
3. Agricultural Levees
 - Breaches must be filled to restore crop production

● **Fast Track Qualifications**

4. Agricultural Levees

- **Lands are to be restored to crop production by next planting, and**
- **Cost of repairs < \$10/acre, or**
- **Cost of repairs < \$50/acre and**
- **Risk of flooding > 20%, or**
- **Risk of flooding > 10%**
(with residential/commercial business)

SECTION 1135 ALTERNATIVE

- **Environmental Enhancement of Federal Projects**
- **Annual Appropriation Limit of \$25 Million
(per project limit of \$5M)**
- **40 Studies Currently in Program**
 - 1 Construction project completed in 1992
 - 5 On-going construction projects
 - 4 Projects in P&S phase
 - Several others in review phase
- **Corps Prepares Report to be Reviewed by ASA-CW
and Submitted to OMB for Approval**

Rehab Status Report

Damaged Levees	<u>NCD</u>		<u>MRD</u>			Total
	NCR	NCS	MRO	MRK	LMVD	
Federal	12	1	9	6	12	40
Non-Fed Elig	6	2	26	110	20	164
Total	18	3	34	116	32	204
Reports Complete	8	0	6	2	10	26
Reports Approved	0	0	3	2	10	15
Initial Repairs Started	0	0	0	1	0	1

Department of the Army
U.S. Army Corps of Engineers--Civil Works
Tabulation of Levees

8/12/93

Category	LMS		LMM		NCS		NCR		MRK		MRO		Total	
	Damaged	Total	Damaged	Total	Damaged	Total	Damaged	Total	Damaged	Total	Damaged	Total	Damaged	Total
Fed Constructed/Fed Maintained	0	0	0	3	0	0	3	8	0	3	0	1	3	15
Fed Constructed/Local Maintain	12	42	0	0	1	32	9	65	6	45	8	30	37	214
Total Federal	12	42	0	3	1	32	12	73	6	48	8	31	40	229
Non-Fed/Local Maintain & Eligible	20	27	0	0	2	83	6	22	110	110	26	26	164	268
Non-Fed not Eligible (See Note 3)	19	20	0	2	0	10	13	163	700	700	147	184	879	1079
Total non-Federal	39	47	0	2	2	93	19	185	810	810	173	210	1043	1347
Total	51	89	0	5	3	125	31	258	816	858	181	241	1083	1576

Notes:

1. "Damaged" levees include those that have breached or were overtopped. There may be additional levees that were not breached or overtopped that were damaged. These will require damage surveys to identify.
2. "Non-Fed/Local Maintain & Eligible" levees in the impacted area (within counties declared a disaster area) that were included in the districts' lists of levees that met the requirements for assistance under PL 84-99.
3. "Non-Fed not Eligible" levees include: a). those levees that were determined to be ineligible for assistance under PL 84-99, and b). those levees for which no application was submitted. The numbers are almost certainly incomplete (the actual total may be over 2000). Most are privately owned agricultural levees. Some of these levees may be eligible for assistance from the Department of Agriculture, Soil Conservation Service.
4. Current rough estimate of the total length of non-federal eligible levees is 1800 miles and the length of non-federal ineligible levees is 4000 miles.

Numbers in *italics* are estimates



DEPARTMENT OF THE ARMY

U.S. Army Corps of Engineers
WASHINGTON, D.C. 20314-1000

20 AUG 1993

REPLY TO
ATTENTION OF:

CECW-OE-D (500-1-1b)

MEMORANDUM FOR Deputy Director of Civil Works for the Upper Mississippi River Basin

SUBJECT: Levee Rehabilitation Program - 1993 Midwest Floods

1. Reference CECW-OE-D memorandum, dated 6 Aug 93, Subject: Levee Rehabilitation Policy and Guidance - Public Law 84-99.
2. The purpose of this memorandum is to forward policy and guidance as discussed in paragraph 2 of referenced memorandum. This memorandum will serve as a basic policy framework for levee rehabilitation under Public Law (PL) 84-99 as the result of the 1993 Midwest Flood. Field implementation of this guidance should allow for a logical, flexible approach to expediting the levee repair program while maintaining important documentation of project eligibility determinations.
3. In some cases, there may be alternatives to rehabilitation which meet all of the following criteria: 1) they are acceptable to the local sponsor; 2) they do not represent a substantial increase in Federal costs above the rehabilitation alternative; 3) they provide appropriate flood protection and environmental outputs. In order to ensure that such alternatives are not overlooked, the Corps will coordinate with Federal agencies and the project sponsor through processes described in Enclosure 1. This additional step is not intended to deny any party access to existing programs for levee rehabilitation, to create unacceptable delays, or to force alternatives to rehabilitation on unwilling participants. Rather it should be viewed as an opportunity to allow considerations of alternatives with input from project sponsors, and with their full consent.
4. Inherent in our assessment process must be an awareness and sensitivity to opportunities to identify possible applications of Section 1135 of the Water Resource Development Act of 1986 for fish and wildlife habitat restoration at Federal projects.
5. To address critical needs for immediate closure of breached levees we have developed a fast track approach to repair breaches in levees where there exists substantial risk for damages to urban and agricultural properties. Enclosure 2 is a flow chart and narrative describing the conditions and criteria for the fast track process. Initial repair would include filling in breaches back to original levee height without the preparation of a full Rehabilitation Project Report (a short form report is

CECW-OE-D

SUBJECT: Levee Rehabilitation Program - 1993 Midwest Floods

required). Public sponsorship and cost share requirements must also be met. Decision regarding final repair will follow the normal report preparation procedure.

6. PL 84-99 Levee Rehabilitation Policy is affirmed as follows:

a. Environmental Policy. All PL 84-99 Rehabilitation actions will conform to the National Environmental Policy Act (NEPA) and applicable environmental regulations. District Commanders shall also meet the requirements in Chapter 7, paragraph 7-33.b.(10) of ER 1105-2-100 (Endangered Species Act) to the fullest practical extent.

b. Cost Share. The 80/20 cost share requirement is retained for non-Federal levee repair. The Corps will allow sponsors to use discretionary funds from other Federal agencies provided the granting agency confirms in writing that there are no legal or policy constraints. There is no cost share for repair of Federally constructed levees.

c. Public Sponsorship. There is no change in the requirement for public sponsorship for non-Federal levees.

d. Engineering and Maintenance Guidelines. There is no waiver of the guidelines for non-Federal levees as written in Appendix E of ER 500-1-1. Owners whose levees were previously determined ineligible will not receive Corps assistance under PL 84-99.

e. Economic Justification. Qualification criteria and procedures for justification of initial repair of levee breaches are covered in paragraph 5 and enclosure 2. Economic justification procedures and other requirements for permanent repairs are as directed in ER 500-1-1.

f. Deliberate Levee Cuts. Repair of deliberate levee cuts will not be carried out by the Corps under PL 84-99. An exception will be made for those levees that were deliberately breached to protect the integrity of the structure and thereby reduced the overall anticipated damages. In those cases only, repairs may be accomplished under PL 84-99 if the cut was made in consultation with the Corps of Engineers.

g. Dewatering. Costs associated with dewatering will continue to be borne by the local interests. Costs associated with dewatering may be eligible for assistance from FEMA under the Stafford Act.

CECW-OE-D

SUBJECT: Levee Rehabilitation Program - 1993 Midwest Floods

h. Repair of Secondary Levees. Secondary levees will not be repaired under PL 84-99 except as provided in paragraph 5-1.r. of ER 500-1-1 to protect human life.

i. Reconstruction in-Kind versus Betterments. Rehabilitation assistance is limited to pre-flood conditions. Set backs would be permitted if a new alignment is less expensive and is environmentally acceptable. Modifications or betterments will not be considered as a part of emergency repairs.

j. Retention of Flood Fight Measures. Emergency measures conducted under PL 84-99 flood fight actions are temporary and must be removed by the local sponsor. Exceptions may be made for measures such as stability or seepage berms if they contribute to the structural integrity of the unit and are environmentally acceptable.

7. In order to assist in your efforts, a series of definitions has been prepared for your use (see enclosure 3). If further definitions are required, please advise this office.

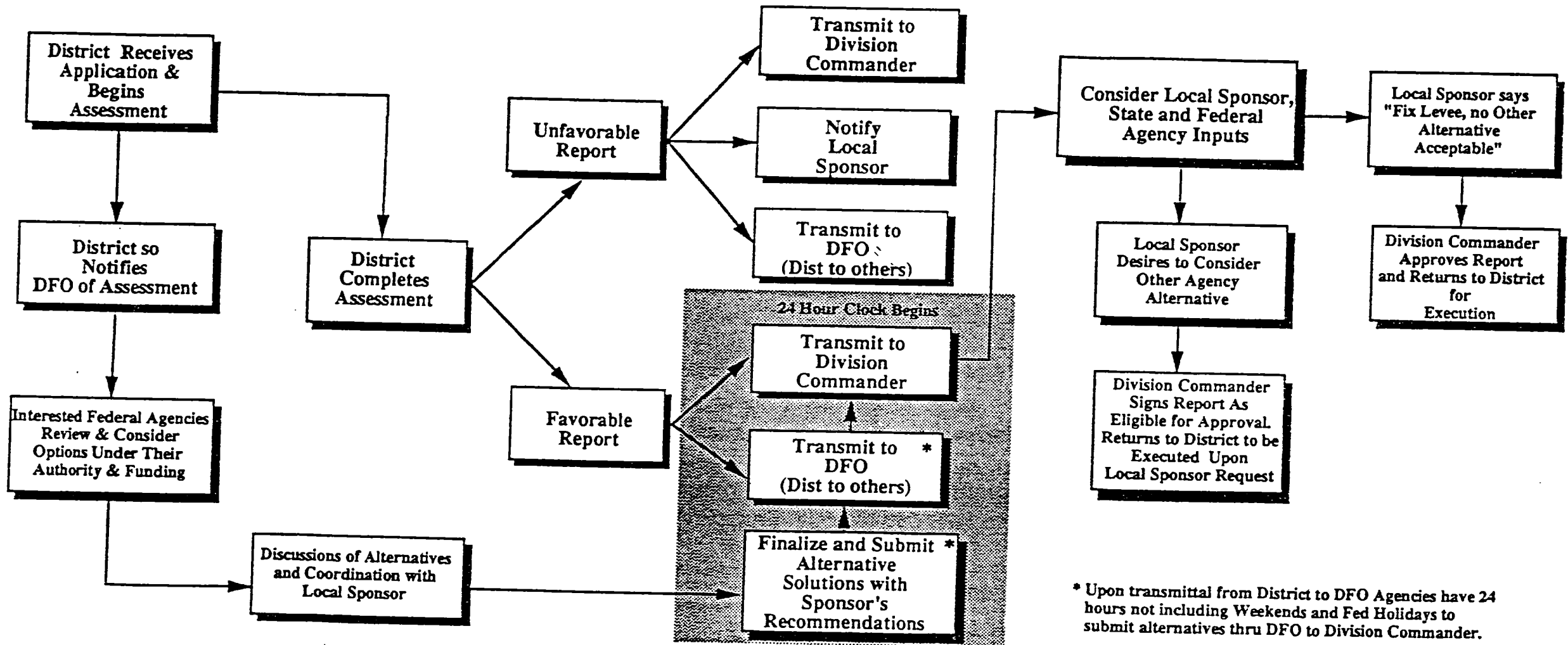
8. Your office is developing a levee database for management of this effort, which will be used as the single source of information by all of us who will be addressing these issues. Enclosure 4 provides a categorization of levees along with the available eligibility programs.

9. My point of contact on this action is Mr. Ed Hecker, Chief, Readiness Branch (202) 272-0251.

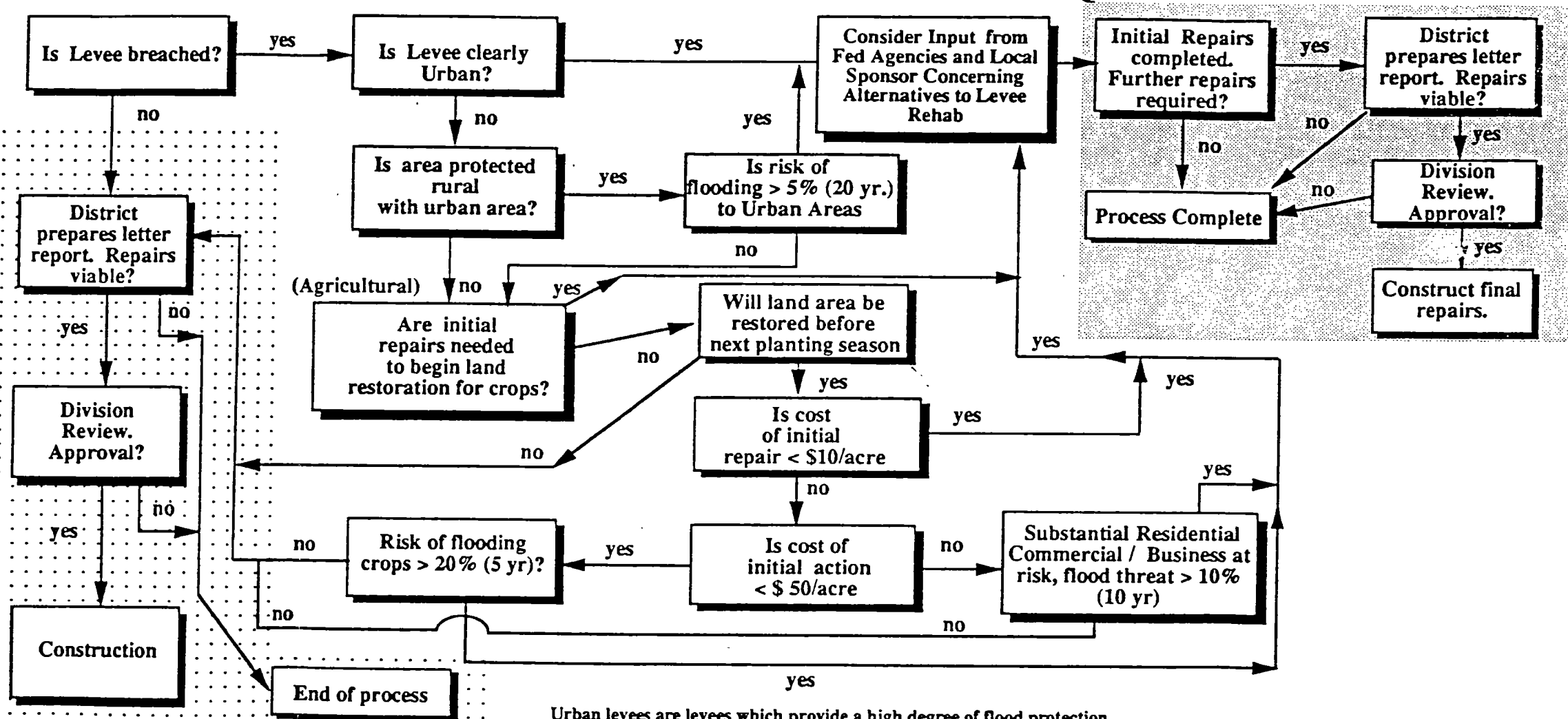
4 Encls


STANLEY G. GENEGA
Brigadier General, USA
Director of Civil Works

DEPARTMENT OF THE ARMY CORPS OF ENGINEERS - CIVIL WORKS APPLICATION FOR LEVEE REHABILITATION RECEIVED



DEPARTMENT OF THE ARMY CORPS OF ENGINEERS - CIVIL WORKS FAST TRACK LEVEE REHABILITATION PROJECT REQUIREMENTS



Urban levees are levees which provide a high degree of flood protection (50 or 100-yr. level of greater) to predominately Urban areas.

PROCEDURES FOR JUSTIFICATION FOR EMERGENCY REMEDIAL ACTIONS

Introduction. The following justification criteria for expedited decisions for closing levee breaches have been developed to reduce the threat of recurrence of substantial flood damages to life and property until decisions can be made regarding full restoration of damaged levees. They have been developed in light of the short time which may be available in some areas to accomplish construction before the winter season makes construction activities impossible. **THESE PROVISIONS SHOULD NOT BE USED FOR FULL RESTORATION DECISIONS OR WHERE THERE IS SUFFICIENT TIME TO PREPARE A FULL REHABILITATION REPORT.**

Justification Criteria. The closing of breached levee sections may be undertaken for the following P.L. 84-99 qualified levees where the conditional provisions are met.

1. Federal and Non-Federal Urban levees where the threat to life and property is considered greater than was present in the pre-flood condition.
2. Federal and Non-Federal levees which protect predominately agricultural land but have one or more Urban areas where the risk of flooding in the current condition to Urban areas is greater than 5 percent (20-yr or more frequent flood event would cause damages to properties in Urban areas). A determination must be made that in the breached condition, actual physical damages would be caused in the urban area by the occurrence of a 5 percent chance flood event.
3. Federal and Non-Federal Agricultural levees which must have the breaches filled to drain lands and/or initiate land restoration and crop production. There must be documentation that Department of Agriculture officials familiar with the area believe that such actions can and will be initiated within the next six months.
4. Federal and Non-Federal Agricultural levees where lands are likely to be returned to crop production by the next planting season, and,
 - 1) The cost of remedial action is less than \$10 per acre, or,
 - 2) The current risk of substantial flooding to residential, commercial, public, and industrial properties is greater than 10 percent (10-yr or more frequent flood event would cause damages to developed properties), or,
 - 3) The cost of remedial action is less than \$50 per acre protected and the risk of flooding is greater than 20 percent chance (5-yr or more frequent flood event would flood croplands). The number of acres protected is the land area behind the levee which is lower than the pre-flood levee height.

Other Conditional Provisions.

- 1. Appropriate environmental compliance procedures are met**
- 2. An engineering judgement is made that there is reasonable expectation that the levee could withstand a flood event for the next year below the top of the low point of the temporarily repaired levee.**
- 3. All breaches in a continuous levee which affect the residual risks and other conditions specified in the Justification Criteria must be filled and the costs included in the justification decision.**

Note: Risk of flooding as used in the justification criteria pertains to the risk of actual lands and properties being flooded and not the level of protection afforded by the breached levee.

DESIGNATED DEFINITIONS FOR LEVEE REHABILITATION INFORMATION

Levee: A structure of earth or stone built parallel to a river to protect land from flooding.

Federal Levee: A levee system constructed by a Federal Agency such as the U.S. Army Corps of Engineers, the Soil Conservation Service, or the Bureau of Reclamation. Levees actually constructed by non-Federal interests, but incorporated into a Federal system by specific Congressional action (Law) are also designated as Federal levees. Previous rehabilitation or reconstruction of a non-Federal levee under an emergency authority by a Federal agency does not make the levee a Federal levee.

Non-Federal Levee: Any levee system constructed by other than a Federal agency which is operated and maintained by a Public Sponsor.

Urban Levee: Levees which provide a high degree of flood protection (50 or 100 year level or greater) to predominately Urbanized areas.

Urban Areas: Urban areas are cities, towns, or other incorporated or unincorporated political subdivisions of States that provide general local government for specific population concentrations, and occupy an essentially continuous area of developed land containing such structures as residences, public and commercial buildings, and industrial sites.

Public Sponsor: A legal subdivision of a state or a state government; local unit of government; qualified Indian Tribe, Alaska Native Corporation or tribal organization; or a state chartered organization, such as a levee board.

Deliberate Levee Cut: A deliberate cut made in a levee to protect the integrity of the structure threatened by overtopping from forecasted river stages and to reduce overall anticipated damages expected to occur to the existing structure by the current flood event. Deliberate levee cuts are made upon judgement by the local interest.

Dewatering Levee Cut: This is an intentional cut in a levee which is considered an engineering/construction method used to dewater the area immediately behind a levee where pumping is not feasible or timely

Dike: In most areas of the U.S., an earthen structure built partway across a river for the purpose of maintaining a navigation channel. In other areas, the term is used synonymously with *levee*.

**DESIGNATED DEFINITIONS FOR
LEEVE REHABILITATION INFORMATION**
(Continued)

Flood Plain: The portion of a river valley that has historically been inundated by a river during floods. The Corps of Engineers encourages local governments to zone their flood plains against development and thereby avoid property damage and reduce obstruction to passage of flood waters.

Floodway: Designated land left clear of development for the passage of flood waters.

Flood Stage: The height of a river above which damages begin to occur. Normally the level at which a river overflows its banks.

Hundred Year Flood: More accurately referred to as a "one percent chance flood," a flood of a magnitude which, according to historical statistics, has one chance in 100 of occurring in any given year. (This does not mean that, once such a flood occurs, the location will not experience another flood for the next 99 years!)

Major Flood: A general term indicating high water that causes extensive inundation and property damage, usually characterized by evacuation of people and animals and closure of highways.

Saturation: A condition in soil which all space between soil particles is filled with water. Such conditions occur after prolonged periods of rainfall, snowmelt and force any additional rainfall to run off into streams. Saturation also occurs in earthen levees during extremely long periods in which the flood waters remain above flood stage, a condition that can cause the levees to weaken.

Work In-Kind: This is the part of the sponsor's cost share that is other than cash.

LEVEE CATEGORIES/FUNDING					
	PL-99	O&M GENERAL	FEMA	SCS	PRIVATE
FFU		X			
FFA		X			
FLU	X				
FLA	X				
LPU	X				
LFA	X				
LNU			X*	X	X
LNA			X*	X	X

1st LETTER

F = FEDERALLY CONSTRUCTED

L = LOCALLY CONSTRUCTED

2nd LETTER

F = FEDERALLY MAINTAINED

L = LOCALLY MAINTAINED

P = LOCALLY MAINTAINED, ELIGIBLE FOR ASSISTANCE

N = LOCALLY MAINTAINED, NOT IN THE CORPS LEVEE
REHABILITATION PROGRAM

3rd LETTER

U = URBAN

A = AGRICULTURE

* MUST BE STATE OR LOCAL GOVERNMENT OWNED

**OFFICE OF MANAGEMENT AND BUDGET
WATER RESOURCES BRANCH**

Telecopier Cover Sheet

Fax Number 202-395-4652 / Office Number 202-395-4590

Date: August 23, 1993

Please deliver the following page(s) to:

Robert Stearns	DOD/CORPS
Stanley Genega	Army-CE
Oleta Fitzgerald	USDA
Karl Otte	USDA/SCS
Michael Derian	USDA
John Maynor	USDA
Richard Krimm	FEMA
Jane Bollock	FEMA
Russell Earnest	DOI/FWS
Mollie Beattie	DOI/FWS
Michele Altemus	DOI/FWS
Jim Douglas	DOI
Richard Sanderson	EPA
David Davis	EPA/OWOW
Michael Huerta	DOT
Joe Canny	DOT
Bernard Kulik	SBA
Wilber Hawkins	DOC
Jean Marison	HUD

cc: Katie McGiney	WH/OEP
William Stelle	WH/OEP
T.J. Glauthier	OMB
Chris Edley	OMB
✓ Kathy Way	OPD
Brian Burke	DPC
Jack Gibbons	OSTP
Ron Cogswell	OMB
Bruce Long	OMB
Mark Weatherly	OMB
Stuart Kasdin	OMB
Scott Cameron	OMB
Chris Heiser	OMB



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 *JJ Gauthier*

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 *William Smith for EM*

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.

*Hand
file***DISTRIBUTION LIST:**

Bob Stearns	Army
Stanley Genega (Gen)	Army-CE
Oleta Fitzgerald	USDA
Karl Otte	USDA-SCS
Michael Derian	USDA
John Maynor	USDA
Richard Krimm	FEMA
Jane Bullock	FEMA
Russ Earnest	DOI-FWS
Mollie Beattie	DOI-FWS
Michele Altemus	DOI-FWS
Jim Douglas	DOI
Richard Sanderson	EPA
David Davis	EPA/OWOW
Michael Huerta	DOT
Joe Canny	DOT
Bernard Kulik	SBA

cc: Katie McGinty	WH/OEP
William Stelle	WH/OEP
T.J. Glauthier	OMB
Chris Edley	OMB
→ Kathy Way	OPD
Brian Burke	DPC
Jack Gibbons	OSTP
Ron Cogswell	OMB
Bruce Long	OMB
Mark Weatherly	OMB
Stuart Kasdin	OMB
Scott Cameron	OMB
Chris Heiser	OMB
Jim Kazel	OMB

*Kathi, —**FYI
Mike**P.S. Should Steve Silverman
get a copy of this
too?*

August 20, 1993

NOTE TO: SEE DISTRIBUTION LIST

FROM: T.J. Glauthier (OMB) and Katie McGinty (OEP)

SUBJECT: Environmental Flood Recovery, Interagency Working
Group

Attached are the following:

1. Draft OMB alternative levee repair and restoration policy guidance for review and comment. Comments should be provided to Jim Kazel, 202-395-4590, Fax 202-395-4652 or 4941, by 3:00 p.m. today.
2. Announcement of the next Working Group meeting.

DRAFT

GUIDANCE

To: Army Corps of Engineers, Soil Conservation Service,
Federal Emergency Management Agency, and other Agencies
Responsible for Repair and Restoration of Levees
Damaged in the Midwest Floods of 1993.

From: Office of Management and Budget and Office of
Environmental Policy

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

Date:

The purpose of this guidance is to ensure the proper consideration of appropriate options for repair, reconstruction and other alternatives to levee restoration necessitated by flood damage. It also is intended to ensure that appropriate 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 control and flood plain management, and protect important environmental and natural resource values.

This guidance is not intended to deny any party access to existing programs for levee repair and restoration, or to force alternatives to repair and restoration on unwilling participants. Rather it should be viewed as an opportunity to allow consideration of alternatives with input from State and local officials, and with their full consent.

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 applicable State Disaster Field Office (DFO), so that interested agencies may contribute to the evaluation process.
- 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, 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 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 will report to OMB and OEP the status of levee repair and restoration, including: applications received, comments received, and actions taken.

August 20, 1993

NOTE TO: SEE DISTRIBUTION LIST

FROM: T.J. Glauthier (OMB) and Katie McGinty (OEP)

SUBJECT: Environmental Flood Recovery, Interagency Working
Group Meeting

The next meeting has been scheduled for our interagency working group on environmental flood recovery actions. It will be Wednesday, August 25th, 10:00 a.m., room 248 of the Old Executive Office Building (17th and Pennsylvania Avenue).

Please contact Bruce Long's secretary, Renée (395-4590), by COB Monday (August 23rd) if there are any changes to the list of attendees, otherwise we will use the listing of August 19th. As before, 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 and OEP's alternative levee repair and restoration policy guidance.

Please come to the meeting with the following:

1. All Agencies -- Brief description of how your agency will work with the Disaster Field Offices Representatives in the review and comment on Corps, SCS, and FEMA levee repair and restoration applications. Include what resources you intend to provide to the effort.
2. All Agencies -- Brief description of programs that, in your judgment, provide cost-effective alternatives to levee 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 an initial listing of agency programs based on our previous discussions.
3. Army, FEMA, SCS -- Copies of any guidance you intend or have sent to your field organizations regarding the funding approval for repair and restoration levees. Agency guidance must include consideration for conducting economic, environmental, and other evaluations supporting the build/no build decision, the consideration of alternatives, and agency interaction with the Disaster Field Offices Representatives in their review and comment of levee restoration or repair applications.

SUMMARY PAPER

1. Project: San Antonio Channel Improvement, Texas
2. Purpose: Flood Control
3. Location: Floodway is in the city of San Antonio, Bexar County, Texas on the San Antonio River and San Pedro, Apache, Alazan, Martinez Creeks, and Espada Aqueduct located in the vicinity of Six Mile Creek.
4. Authority: Flood Control Act of 1954. The Water Resources Development Act of 1976 added authorization to the existing project for construction of flood control measures needed to preserve and protect the Espada Aqueduct.
5. Date of Implementation: Construction was initiated in October 1957 and is over 90 percent complete. Project completion is scheduled for June 1995.
6. Project Description: The project improvements consists of clearing, widening, deepening, and straightening approximately 34.9 miles of river and creek channels. Also involved is selective channel paving and the construction of concrete floodways, conduits and diversion dike.
7. Challenge and Solution: The challenge is to relieve the city's flooding problem created by the convergence of the San Antonio River and tributaries. Channel work has been completed on Alazan and Apache Creeks and partially completed on Martinez and the San Antonio River. Detailed engineering and design studies reveal that remaining channel improvements would consist of two tunnels.
8. Implementation Costs and Benefits: (Oct. '82 price levels)

Cost Sharing

Federal	\$74,200,000
Non-Federal	92,600,000

Benefits

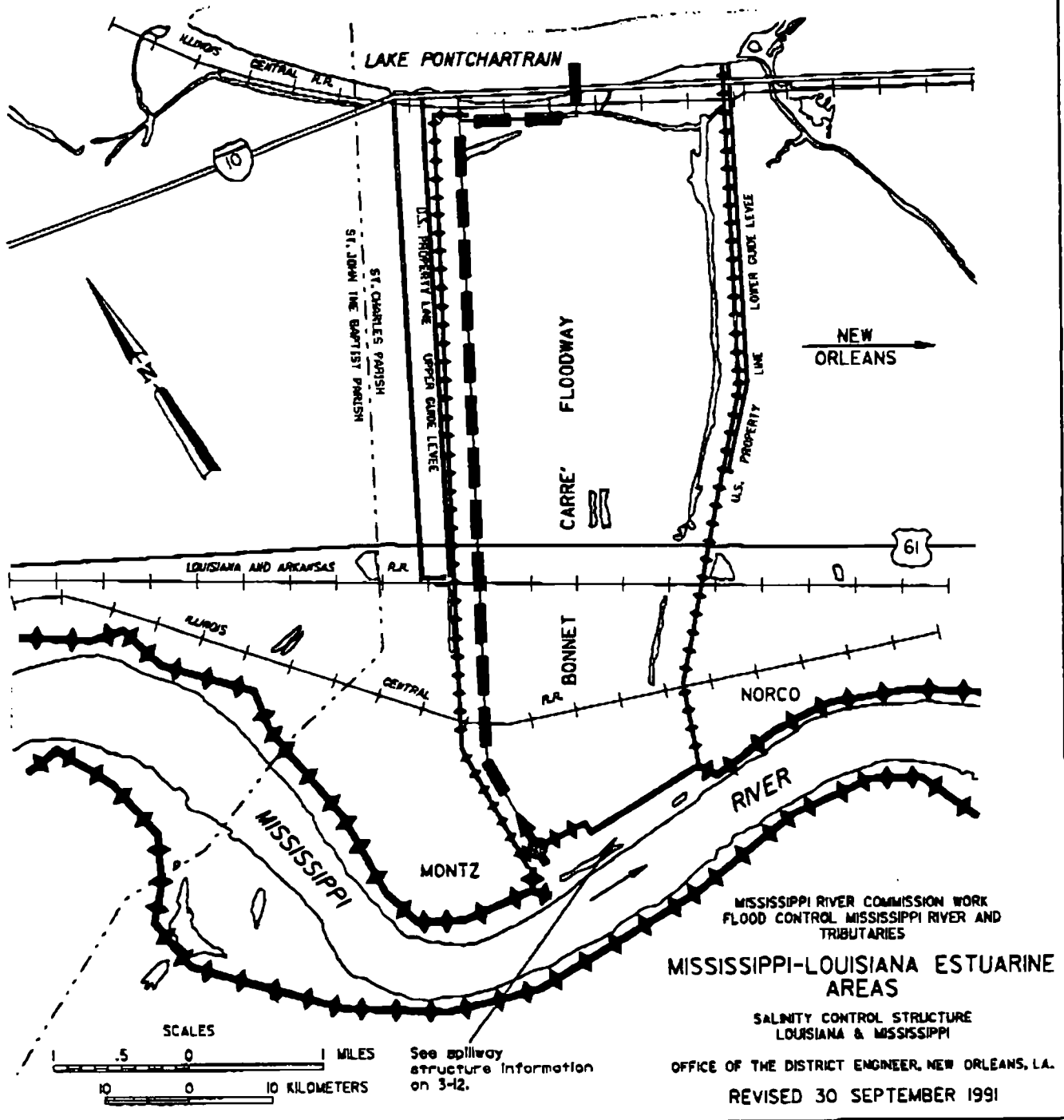
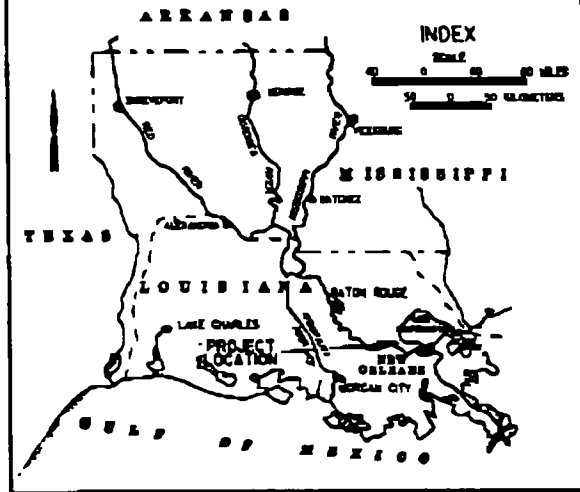
Accumulated damages prevented through FY '90 for the San Antonio project were \$117,514,900.

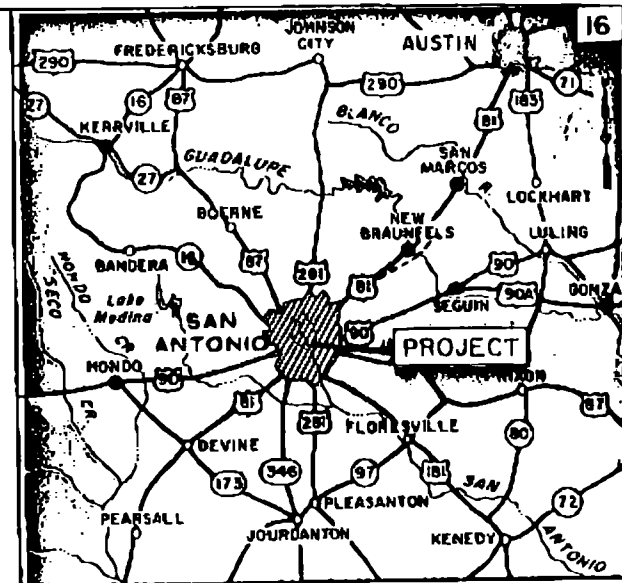
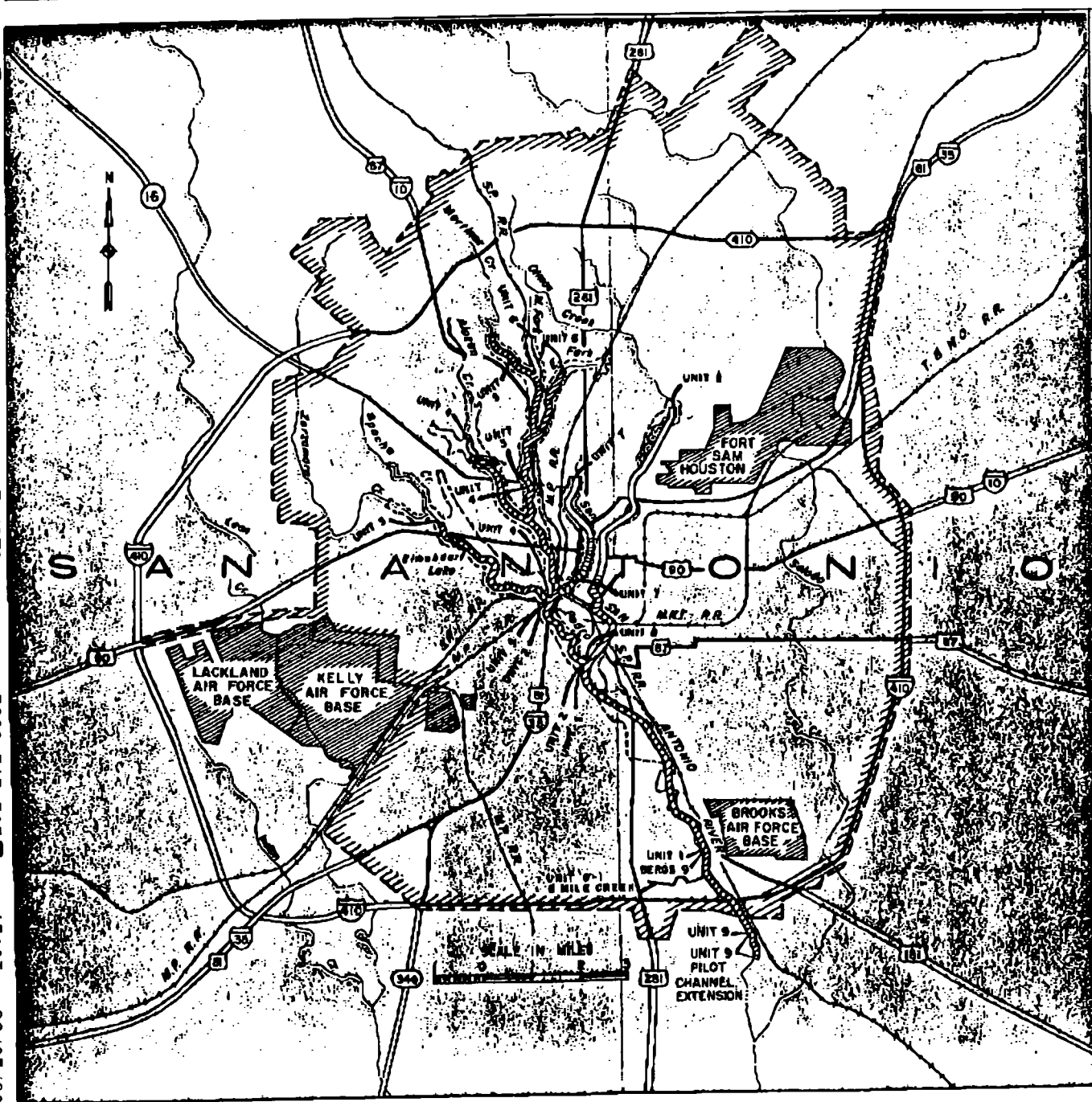
9. History of Project Performance: The San Antonio River Authority is please with the complete portions of the project and have provided assurances to continue to meet the requirements of local cooperation. The total project is approximately 80 percent physically complete and is scheduled for completion in June 1995.

3-20

LEGEND

-  Improvements authorized
 Conveyance channel
 Control structure





VICINITY MAP

SCALE OF MILES
10 0 10 20
MILES

LEGEND

- Authorized Channel Improvement
- Completed Portions

FLOOD CONTROL PROJECT
SAN ANTONIO RIVER AND TRIBUTARIES
CHANNEL IMPROVEMENT
SAN ANTONIO, TEXAS
REVISED 30 SEPTEMBER 1979
U.S. ARMY ENGINEER DISTRICT, FT. WORTH

SUMMARY PAPER

1. Project: Dallas Floodway, Dallas, Texas
2. Purpose: Flood Control
3. Location: Elm Fork and West Fork of the Trinity River in Dallas, Texas
4. Authority: River and Harbor Acts of March 2, 1945 and May 17, 1950.
5. Date of Implementation: Construction was initiated in January 1953 and completed in May 1960.
6. Project Description: The project provided for the strengthening of approximately 23 miles of existing levees, clearing the floodway channel and improvement of interior drainage facilities.
7. Challenge and Solution: The existing levees and floodway improvements were originally constructed by local interests during 1928 to 1932. However, important businesses, industries, warehouses, transportation and communication facilities and residential property were still sustaining costly flood damages. In addition to strengthening the levees and clearing the floodway, installation and modification of drainage structures, construction of pressure sewers, construction of pump stations and construction and modification of sump areas were undertaken.
8. Implementation Costs and Benefits: (Oct. '82 price levels)

Cost Sharing

Federal	\$8,350,000
Non-Federal	1,498,000

Benefits

Flood control benefits for the Dallas Floodway includes Lakes Grapevine, Lewisville and Ray Roberts. The cumulative savings in flood control benefits through December 1990 were \$4.2 billion.

9. History of Project Performance: Cost of the original project, including rights-of-way, bridges, utilities, etc., has been estimated by local interests at \$20 million. The project has performed well since Federal improvements were made, to the extent that an extension is now proposed to enlarge and realign about 9 miles of the Trinity River, about 9.6 miles of tributary channels, and construct related levees.



U.S. ARMY ENGINEER DISTRICT, FT. WORTH

TYPICAL FLOODWAY SECTION

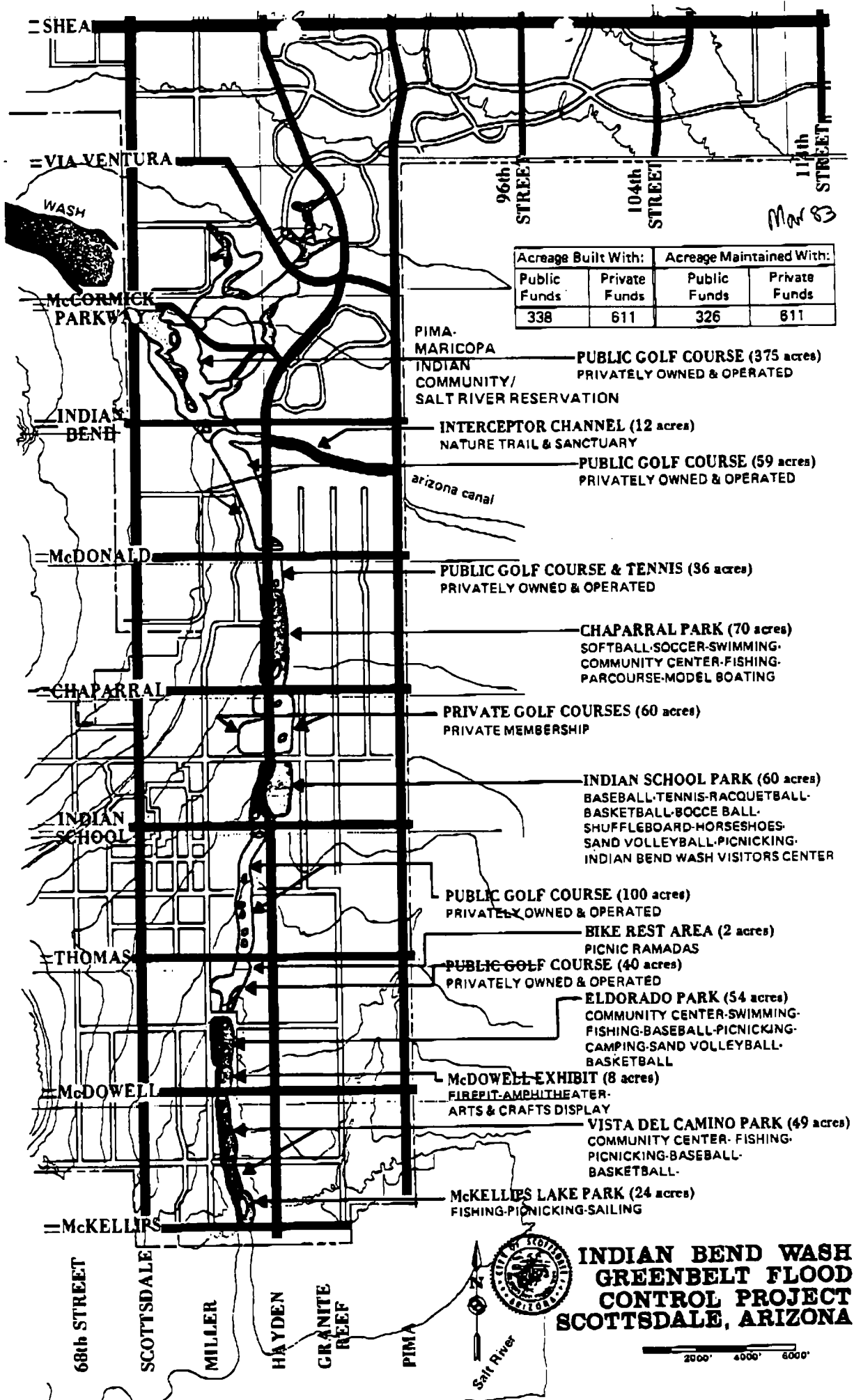
SUMMARY PAPER

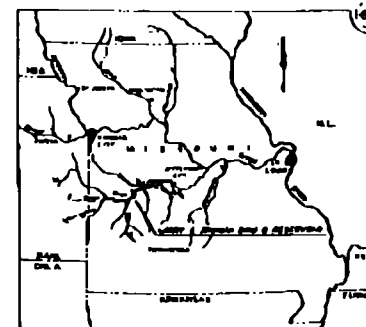
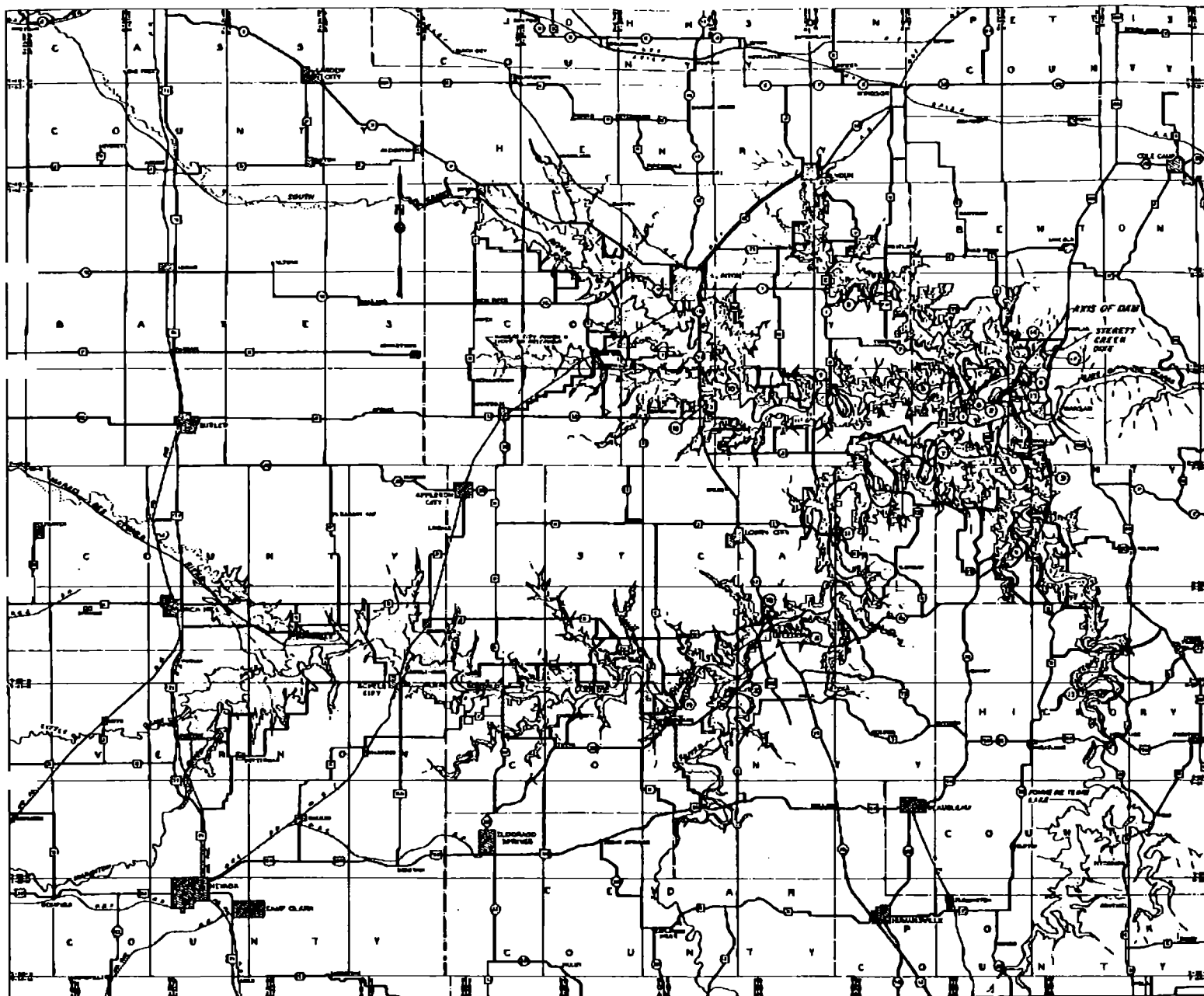
1. Project: Indian Bend Wash, Gila River Basin, Arizona.
2. Purpose: Flood control and recreation.
3. Location: Scottsdale, Maricopa County , Arizona.
4. Authority: Flood Control Act of 1965 as amended by the Water Resources Development Act of 1974.
5. Date of Implementation: Construction of the project was completed in 1985.
6. Project Description: The project provides flood control and recreation through a greenbelt floodway approximately 7.5 miles long and ranging in width from 600 to 1100 feet. The project is designed for the 100-year flood. The open turfed areas of the floodway provide public recreation through developed parks and golf courses.
7. Challenge and Solution: The Corps of Engineers, city, county and state officials worked together for three decades to find a creative flood control solution to Scottsdale. The initial plan for the wash suggested that a traditional concrete channel be built. The channel would have been about 23-feet deep and 170 feet wide and concern was raised over the esthetics of such a channel. The residents of Scottsdale feared a concrete channel would become too severe a physical and psychological divider of the city. Not wanting such an intrusion in their community, it was recommended turning the wash into a recreational greenbelt which would effectively control flooding while providing needed recreation. The concrete channel was abandoned and working together, the Corps, the Maricopa County Flood Control District and the cities of Scottsdale and Tempe, Arizona were able to develop a viable plan that would only have minimal structural work at both ends and would be developed extensively with grass and facilities for public use.
8. Implementation Costs: (September 1987 price levels):

Cost Sharing

Federal	\$31,810,000
Non-Federal	3,435,000
Total	\$35,245,000

9. History of Project Performance: Hit with several floods since constructed, the Indian Bend Wash project has successfully channeled water through the city and into the Salt River in the south.





LOCATION
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
IN MILES

PUBLIC ACCESS AREAS

- | | |
|-------------------|------------------|
| ① HALLAMER BLUFF | ⑪ TALLEY SAND |
| ② SHAWNEE BECH | ⑫ CAGNEY'S CREEK |
| ③ SPACE BLUFF | ⑬ ALLIANCE POND |
| ④ FAIRFIELD | ⑭ DORRIS POINT |
| ⑤ LAMP, BORN | ⑮ CROSS TRAIL |
| ⑥ HARRISON CREEK | ⑯ SHAWNEE |
| ⑦ GORGE BLUFF | ⑰ STREET CREEK |
| ⑧ H.S. STATE PARK | ⑱ COOPER'S CREEK |
| ⑨ BURNHAM | ⑲ RIVER |
| ⑩ SHAWNEE | ⑳ BAY RIVER |

" LIMITED USE AREA

LEGEND

Reservoir at flood control pool level
 Reservoir at sedimentation and
 multipurpose pool level
 Existing Reservoir
 Paved Road (concrete or surface-treated)
 Improved Road (gravel or stone)
 Graded Road
 Unimproved Road
 Public Use Area

Reservoir Capacity 5,202,700 Ac-ft (EL. 1386)

1946 PROJECT MAPS
HARRY S. TRUMAN DAM & RESERVOIR
 COME OVER, MISSOURI

MULTIPLE PURPOSE PROJECT
 RESERVOIR AREA

In 2 sheets

Sheet No. 1

Scale: as shown

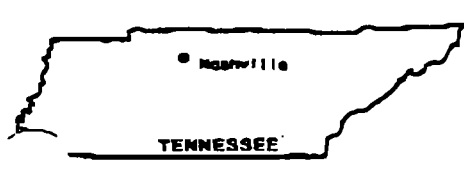
U. S. ARMY ENGINEER DISTRICT
 KANSAS CITY

10 SEPTEMBER 1961

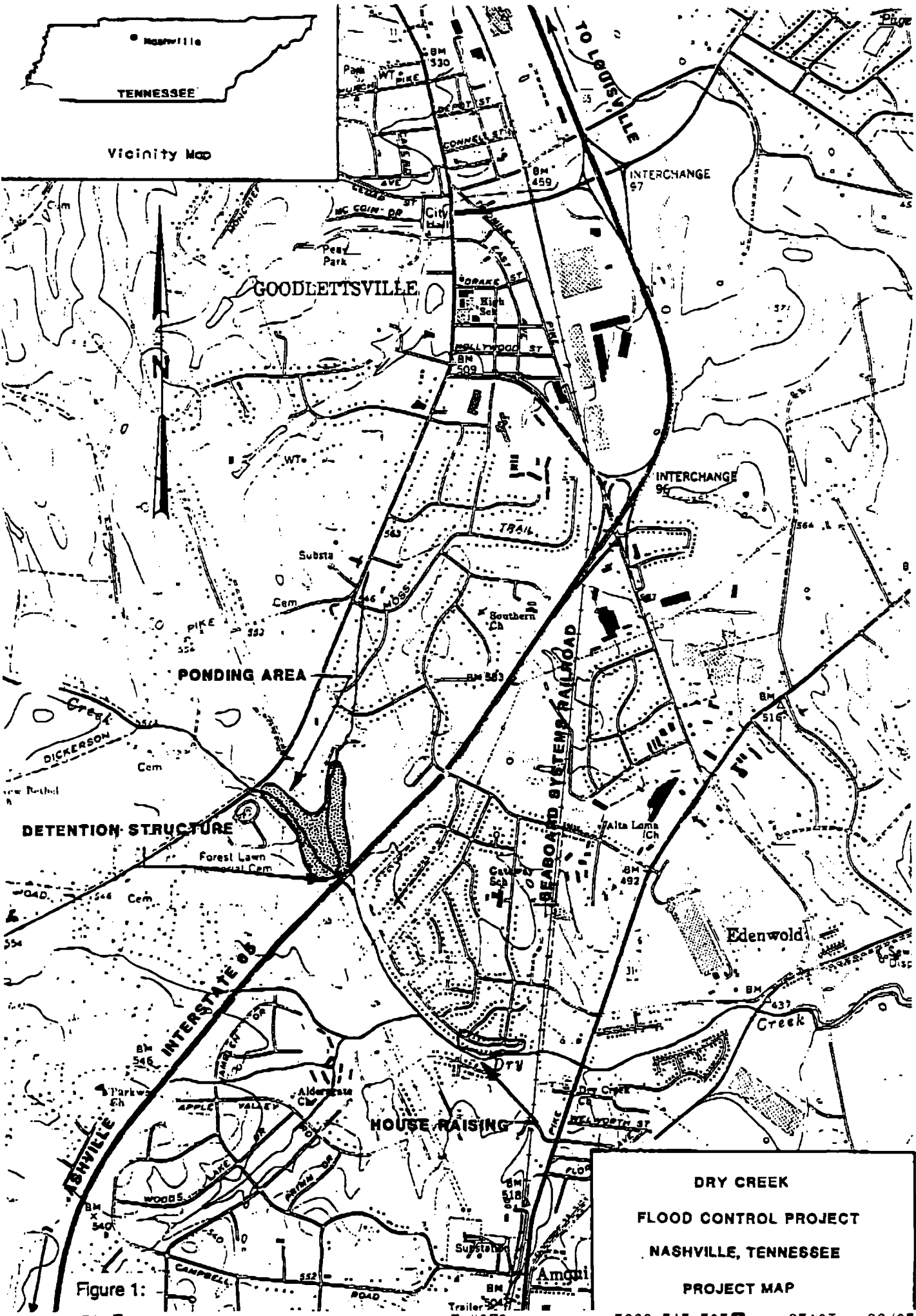
FILE NO. 11-40-01

SUMMARY PAPER

1. Project: Dry Creek, Goodlettsville, Tennessee
2. Purpose: Flood damage prevention
3. Location: Dry Creek is 12 miles north of Nashville, TN. The creek forms the southern city limits of Goodlettsville, TN.
4. Authority: Section 205, Flood Control Act of 1948, as amended
5. Date of Implementation:
6. Project Description: The project is to retain floodwaters by constructing a weir just upstream of the I-65 embankment, protecting two TVA towers, sealing the local sewer system and raise about 19 homes in-place.
7. Challenge and Solution: Frequent flooding is a problem along Dry Creek and, in particular, the Gateway subdivision of Goodlettsville. Hydrologic computations show that in the one-mile stretch of the creek, about 68 homes are vulnerable to 100 year flooding. The overall project provides 100 year flood protection to the Gateway subdivision residents.
8. Implementation Costs: \$1,200,000
9. History of Project Performance: The Dry Creek flood proofing project was a success. The project objectives were achieved -- flood proof the homes in a cost efficient manner and maximize homeowner satisfaction.



Vicinity Map



DRY CREEK
FLOOD CONTROL PROJECT
NASHVILLE, TENNESSEE
PROJECT MAP

Figure 1:

SUMMARY PAPER

1. Project: Bonnet Carre' Spillway (Floodway), New Orleans, Louisiana.
2. Purpose: To divert excess flood flows from the Mississippi River into Lake Pontchartrain in order to hold down flood stages at New Orleans. This project is a component of the Mississippi River and Tributaries project.
3. Location: New Orleans, Louisiana.
4. Authority: Flood Control Act of 1928.
5. Date of Implementation: The project was completed in 1936.
6. Project description: The project consists of a control structure, levees and utility crossings.
7. Challenges and Solutions: The challenge was to design a system to divert floodflows from the Mississippi River's main stem so that levees of reasonable height could be used to contain the project flood. The solution was to build floodways above critical areas.
8. Implementation Costs and Benefits: The cost of the completed project was \$14,212,200. It was accomplished at 100% Federal cost.
9. History of Project Performance: The floodway was operated to reduce flood stages seven times in 1937, 1945, 1950, 1973, 1975, 1979 and 1983. The project has performed to expectations.