DEPARTMENT OF THE ARMY
U.S. Army Corps of Engineers
WASHINGTON, D.C. 20314-1000

REPLY TO
ATTENTION OF:

01 DEC 1999

RECORD OF DECISION
ENVIRONMENTAL IMPACT STATEMENT
DALLAS FLOODWAY EXTENSION, TEXAS

SYNOPSIS

In February 1999, the Final General Reevaluation Report and Integrated Environmental Impact Statement, which documented the results of a comprehensive reevaluation of the authorized Dallas Floodway Extension Project located in the Trinity River Basin, Texas, was filed with the U.S. Environmental Protection Agency. The review period was extended an additional 30 days in response to local interest requests. This Record of Decision completes the approval process for flood damage reduction, environmental (ecosystem) restoration, and recreation measures for the Dallas Floodway Extension, Texas, as described in the referenced report.

AUTHORITY

Authority for construction of water resource development features described in the Comprehensive Survey Report on Trinity River and Tributaries, Texas (reprinted as House Document 276/89/1), including the Dallas Floodway Extension, is contained in Section 301 of the Rivers and Harbors Act approved 27 October 1965 (Public Law 89-298). The authority is commonly known as the Trinity River and Tributaries Basinwide Study Authority. All studies conducted under this authority serve as an interim response to the basin wide authority, and do not close out the granting authority. Section 351 of the Water Resources Development Act (WRDA) of 1996 (Public Law 104 303) and Section 356 of WRDA 1999 (Public Law 106-53) authorized several project modifications.

The Dallas Floodway Extension is one of five local flood protection projects authorized for construction in 1965 as part of the basin wide plan of improvement for the Trinity River and Tributaries, Texas. The authorized plan of improvement consisted of a combination flood control channel and floodway levees which would provide a Standard Project Flood (SPF) level of protection. The plan consisted of a 22-mile levee and floodway system with a 9.1 mile residual channel along the Trinity River, 4.1 miles of channel improvements along White Rock Creek, and 5.4 miles of channel improvements to divert Five Mile Creek.

A General Design Memorandum (GDM), which assessed the Dallas Floodway Extension in greater detail, was completed in 1981. In 1985, however, work on the project was suspended following a failed city of Dallas bond election. Final approval of the 1981 GDM was subsequently discontinued, resulting in the retention of the 1965 plan as the authorized plan.

The current General Reevaluation Study was the result of a request by the city of Dallas to reactivate the authorized Dallas Floodway Extension Project, following the severe flood event of 1989. The project was reactivated in 1990 under the provision that a general reevaluation be conducted prior to construction.

DECISION

It is my decision that the Recommended Federally Supported Plan (FSP) for the Dallas Floodway Extension Project should be implemented as soon as practicable as a means to alleviate potential flood damages, restore the natural environment, and provide recreation facilities within the Dallas, Texas, area. Authority to implement the project is partially provided by Section 301 of the Rivers and Harbors Act approved 27 October 1965 (Public Law 89-298). In addition, Section 351 of WRDA 1996 (Public Law 104-303) authorized that the sponsor built Rochester Park Levee and CWTP Levee be included in the project and that the sponsor receive credit for work carried out which is integral with the project as authorized and as currently recommended. Section 356 of WRDA 1999 (Public Law 106-53) authorized environmental restoration and recreation as project purposes. All project features of the Recommended FSP are either specifically authorized by Congress, or can be implemented within the discretionary authority of the Chief of Engineers [33 U.S.C. 701(m)] and no additional project authorization is needed.

FINDINGS OF THE FINAL GENERAL REEVALUATION REPORT AND INTEGRATED ENVIRONMENTAL IMPACT STATEMENT

Implementation of the Recommended FSP, as presented in the Final General Reevaluation Report and Integrated Environmental Impact Statement, dated February 1999 (revised September 1999), would provide completion of a significant portion of the Authorized Plan for the Dallas Floodway Extension. The Recommended FSP, as described in summary below, is located within the authorized site, and includes smaller scale features of the authorized flood damage reduction plan. Future work efforts to more fully fulfill the scope of the authorized plan would not be adversely affected by the Recommended FSP.

COMPARISON OF ALTERNATIVE PLANS

Subsequent to the evaluation and assessment of potential water resources management measures in the Dallas area and formulation of those measures into plan components, various comprehensive plans were investigated. Evaluation of those plans in light of specified planning objectives and public involvement produced the array of alternative plans as detailed below.

The 1965 Authorized Plan consists of a combination flood control channel and floodway levees which would provide a Standard Project Flood (SPF) level of protection (approximately 800-year or 0.125 percent Annual Chance of Exceedence (ACE). The plan would include a 22-mile levee and floodway system with a 9.1 mile residual channel along the Trinity River, 4.1 miles of channel improvements along White Rock Creek, and 5.4 miles of channel improvements to divert Five Mile Creek. This plan would no longer be economically justified, with current flood control first costs of $199.2 million (January 1997 prices) , annual flood control costs of $17.1 million (7.375 percent interest, 50-year period of analysis), negative annual net flood control benefits of $4.1 million, and a benefit-to-cost ratio (BCR) of 0.76.

The National Economic Development (NED) Plan consists of clearing the vegetation along an upper and a lower overbank swale. The upper overbank swale would be about 1,200 feet wide and would extend from the confluence of Cedar Creek, at the upstream end of the project, to the river crossing of IH-45 for a length of about 7,800 feet, or 1.5 miles. The lower overbank swale would be about 1,200 feet wide extending from Hwy. 310, beginning at least 100' from the edge of the east bank, downstream to about 2,000 feet below Loop 12, for a total length of 17,300 feet, or 3.3 miles. Fragmentation of habitat would be unavoidable and would require extensive mitigation. Acquisition and management of approximately 3,200 acres of land would be required to offset the adverse environmental impacts associated with the project's implementation. This plan would have estimated flood damage reduction first costs of $50 million (January 1887 prices), annual flood control costs of $5.5 million (7.375 percent interest, 50-year period of analysis), annual net flood control benefits of $8.1 million, and a BCR of 2.46.

The Combination Non-structural / Structural Plan (which is the environmentally preferable alternative) consists of a chain of wetlands, a Standard Project Flood (SPF) levee protecting the Lamar neighborhood, and a 10-year buyout of the Cadillac Heights area (seven structures). The buyout of seven structures would leave 158 structures within the 100-year floodplain in Cadillac Heights. This plan would have estimated flood damage reduction first costs of $67.0 million (January 1997 prices), annual flood control first costs of $7.6 million (7.375 percent interest, 50-year period of analysis), annual net flood control benefits of $5.3 million, and a BCR of 1.70.

The Recommended FSP is a multi-objective project consisting of a swale for reducing flood damages, with an incorporated chain of wetlands for environmental restoration purposes, SPF levees protecting the Lamar and Cadillac Heights neighborhoods, environmental mitigation, and recreation facilities compatible with a larger, regional recreation master plan. Also included in this plan would be a proposed realignment of the existing river channel at the IH-45 bridge to prevent catastrophic failure of this designated national defense route, and to reduce significant annual maintenance costs due to debris accumulations at the bridge. This plan is also the locally preferred plan. This plan will provide an approximate 800-year or 0.125 percent ACE level of protection to the areas adjacent to and upstream of the project area. This plan would have an estimated first cost of $127.2 million (October 1998 prices), annual costs of $9.3 million

(6.875 percent interest, 50-year period of analysis), annual benefits of $19.1 million, and a BCR of 2.06.

PLAN SELECTION CONSIDERATIONS

Plan selection considerations involved a comparison of the cost effectiveness, environmental – social – economic balance, broad social acceptability, and adverse environmental impacts of the final plans. Plans formulated were evaluated based on their contribution to the National Economic Development account, and they are consistent with protection and restoration of the Nation's environment. In addition to these National objectives, additional planning objectives evolved from meetings with area residents, from contact with the local sponsor, State and Federal agencies, and from observations made in the area. Specific needs, desires, and goals of the community were identified. The plan selection considerations for the Dallas Floodway Extension project were as follows:

* Reduce flood damages, provide better health and safety measures, reduce emergency services, reduce potential for loss of life due to high velocity flows, reduce isolations caused by flood waters, reduce overtopping of bridges and roads along the Trinity River, and reduce the loss of jobs and/or wages caused by flooding from the Trinity River within the city of Dallas.

* Preserve and protect existing environmental and aesthetically pleasing areas and maintain, as much as possible, the existing vegetation and wildlife habitat along the Trinity. The channel portion of the Trinity River is possibly the largest remaining natural channel within Dallas.

* Preserve and/or protect historically and culturally significant areas.

In summary, a comparison of the alternatives reveals the 1965 Authorized Plan, which did not include mitigation, is no longer the best plan nor is it cost effective or environmentally or socially acceptable; the NED Plan would not provide the maximum protection to the project area and would require significant mitigation, with approximately 3,200 acres of land being required to offset the adverse environmental impacts; the Combination Non-structural / Structural Plan (environmentally preferable alternative) was not selected because it would leave 158 structures within the 100-year floodplain in Cadillac Heights without flood protection and would provide disproportionate flood protection within the project area , while requiring 1,027 acres of mitigation; and the Recommended FSP which provides the maximum protection to the project area, while requiring 1,179 acres of mitigation, best satisfies cost-effectiveness, social, and environmental acceptability criteria and is the locally preferred plan.

ENVIRONMENTAL CONSIDERATIONS IN THE FINAL GENERAL REEVALUATION REPORT AND INTEGRATED ENVIRONMENTAL IMPACT STATEMENT

Compliance with applicable environmental review and consultation requirements has been accomplished through coordination of the Final General Reevaluation Report and Integrated Environmental Impact Statement. In addition to satisfying the Fish and Wildlife Service Coordination Act, full compliance has been accomplished with the Clean Water Act, including the preparation of a Section 404(b)(1) analysis, Clean Air Act, Comprehensive Environmental Resource Compensation and Liability Act, Resource Conservation and Recovery Act, Endangered Species Act, National Historic Preservation Act, Floodplain Management (Executive Order 11988), Section 9 (33 U.SC. 401) and Section 10 (33 U.S.C. 403) of the Rivers and Harbors Act of 1899, and Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations (Executive Order 12898). The General Reevaluation Report and Integrated Environmental Impact Statement are being submitted to Congress to satisfy the requirements of Subsection 404(r) of the Clean Water Act [33 U.S.C. 1344(r)]. Subsection 404(r) waives the requirement to obtain the state water quality certification and requires that the project EIS be submitted to Congress prior to appropriation of funds for the project. The integrated project EIS provides information regarding the effects of the discharge of dredged or fill material, related to project construction of the Recommended FSP.

A signed Programmatic Agreement with the Advisory Council on Historic Preservation, Texas Historic Preservation Office, and other interested parties has been developed to address cultural resources with due diligence.

All practicable means to avoid or minimize environmental impacts have been adopted and were incorporated in the development of the Recommended FSP. The Final Fish and Wildlife Coordination Act Report, dated February 3, 1999, has been coordinated with Texas Parks and Wildlife Department. The conclusion was that if the Recommended FSP is implemented, the project should include the acquisition and intensive management of a minimum of 1,179 acres of terrestrial habitat, including 926 acres of bottomland hardwoods and reforestation of 253 acres of mixed grass-forb lands. Once the environmental restoration and mitigation features have been turned over to the non-Federal sponsor for long term operation and maintenance, a program to monitor the success of the environmental restoration and mitigation features of the project will be initiated. The U.S. Army Corps of Engineers, Fort Worth District, will conduct annual inspections of the environmental restoration and mitigation areas and any deficiencies would be documented. Enforcement procedures to rectify any deficiencies in the environmental restoration or mitigation features will be adopted and jointly implemented by the non-Federal sponsor and the U.S. Army Corps of Engineers. The non-Federal sponsor will be responsible for all Operation, Maintenance, Repair, Rehabilitation, and Replacement requirements of the environmental restoration and mitigation features.

CONCLUSIONS

I have reviewed and evaluated all documents concerning the Fort Worth District Engineer's recommendation, including the views of other interested agencies and the general public, and have considered prevailing administrative policies and procedures. Based on these factors, I find the Recommended FSP as contained in the Final General Reevaluation Report and Integrated Environmental Impact Statement, dated February 1999 (Revised September 1999), suitable for use as a plan for implementation of flood damage reduction, environmental restoration, and recreation at Dallas, Texas. I further conclude that the Dallas Floodway Extension project should be implemented as soon as practicable.

Based on the conditions set forth in the Fort Worth District Engineer's findings and the conditions set forth herein, I conclude that the public interest is best served by the decisions as set forth herein.

HANS A. VAN WINKLE
Major General, U.S. Army
Deputy Commander for
Civil Works