RECORD OF DECISION

GRAND PRAIRIE AREA DEMONSTRATION PROJECT
GRAND PRAIRIE REGION AND BAYOU METO BASIN, ARKANSAS, PROJECT

SYNOPSIS

The Final Environmental Impact Statement (FEIS) for the construction and operation of the Grand Prairie Area Demonstration Project, Arkansas, was filed with the Environmental Protection Agency on December 17, 1999. The review period for the FEIS expired on January 31, 2000. The project is authorized for construction and funds have been appropriated by Congress to initiate construction. This Record of Decision documents the decision of the U.S. Army Corps of Engineers to implement the project and was prepared pursuant to regulations of the Council on Environmental Quality (40 CFR 1505.2) and the implementing policy and procedures of the Corps (33 CFR 230.14).

DECISION

In 1996, Congress reauthorized the original Grand Prairie Region and Bayou Meto Basin flood control project with a broadened scope of work. Section 363(a), Project Reauthorizations, of the Water Resources Development Act (WRDA) of 1996, Public Law 104-303, is quoted as follows:

> "Grand Prairie Region and Bayou Meto Basin, Arkansas.--The project for flood control, Grand Prairie Region and Bayou Meto Basin, Arkansas, authorized by section 204 of the Flood Control Act of 1950 (64 Stat. 174) and deauthorized pursuant to section 1001(b) of the Water Resources Development Act of 1986 (33 U.S.C. 579a(b)), is authorized to be carried out by the Secretary; except that the scope of the project includes ground water protection and conservation, agricultural water supply, and waterfowl management if the Secretary determines that the change in the scope of the project is technically sound, environmentally acceptable, and economic, as applicable."

Construction of features for aquifer protection, agricultural water supply, and environmental restoration and enhancement in the Grand Prairie Region of Arkansas, was recommended in the report entitled, "Eastern Arkansas Region Comprehensive Study, Grand Prairie Region and Bayou Meto Basin, Arkansas, Project, Grand Prairie Area Demonstration Project, General Reevaluation Report and Environmental Impact Statement", dated September1999.

Project Alternative 7 combines water conservation and storage with a water import system and is environmentally preferred over all other alternatives considered during the general reevaluation because it meets the authorized purposes of groundwater protection and conservation and waterfowl management. Four variations of Alternative 7 were formulated to optimize the import system. These plans were presented in the final array of plan alternatives. Alternative 7B

was selected as the recommended plan of improvement because it optimizes economic and environmental outputs and is the National Economic Development (NED) plan.

Based on my review of the General Reevaluation Report (GRR) and FEIS for the Grand Prairie Region separable element, and the comments received on the proposed work from interested agencies and the public, I find the plan recommended by the District Engineer, Memphis District, U.S. Army Corps of Engineers to alleviate the severe aquifer depletion problems in the Grand Prairie Region; to be economically justified; in compliance with all Federal, state, and local requirements; and in the public interest. Therefore, I approve the recommended plan for construction.

ALTERNATIVE PLANS CONSIDERED

In addition to no-action, alternatives were considered to preserve the aquifers and allow for continued irrigated agriculture in the Grand Prairie. No action results in loss of the aquifers and a 77% reduction in irrigated cropland in the prairie. Other alternatives include additional on-farm storage reservoirs; conservation features with additional storage; an import system and conservation features without additional storage; and a combination of conservation, additional storage, and an import system. Analyses showed that imported surface water was necessary to provide for protection of the aquifers and prevent large losses in irrigated agriculture. The optimum plan includes the combination of conservation features, additional on-farm storage, and an import system. Various levels of these methods were evaluated to yield the recommend plan

The recommended project plan consists of four major components for supplying supplemental irrigation water to the project area and preserving existing water resources. The identified irrigation water supply components are (1) conservation – increasing irrigation efficiencies by approximately 10% over the project area, (2) using groundwater at the safe yield of the aquifer, (3) additional on-farm storage reservoirs, and (4) an import water system consisting of a 1640 cfs pumping station on the White River and a system of canals, pipelines, and natural streams to deliver the water to individual farms. Environmental features are also an integral part of the selected plan. Environmental project features will restore native prairie vegetation, enhance stream fisheries, and provide 38,529 acres of flooded and rolled rice fields (on an average annual basis) for waterfowl habitat.

ENVIRONMENTAL AND OTHER CONSIDERATIONS

Compliance with applicable environmental review and consultation requirements has been accomplished throughout the Corps of Engineers study process. The FEIS documents consideration of and compliance with a number of environmental laws and executive orders, including the National Environmental Policy Act (NEPA), Fish and Wildlife Coordination Act, Clean Water Act, Clean Air Act, Endangered Species Act, Land and Water Conservation Fund Act, Farmland Protection Policy Act, National Historic Preservation Act, Executive Order 11988 (Floodplain Management),

Executive Order 11990 (Protection of Wetlands), Executive Order 11593 (Protection of the Cultural Environment), and Executive Order 12898 (Environmental Justice in Minority and Low-income Populations).

All practicable means have been adopted to avoid or minimize adverse environmental impacts associated with the recommended plan. Primary resource impacts are to bottomland and upland hardwood forests and scrub/shrub swamps. Due to the small amount of remaining upland hardwoods in the project area, in-kind mitigation is planned for this habitat type. Mitigation for unavoidable adverse impacts consists of acquisition of 193 acres of cleared land to be planted in upland hardwoods and acquisition of 243 acres of agricultural land to be planted in bottomland hardwoods. A project-monitoring program will be developed by an inter-agency resource team in order to monitor project effects on water quality, White River flows, oxbow lake connectivity, larval fishes, and other resources. The annual flooding of rice fields for waterfowl will also be monitored.

During preparation of the FEIS, potential impacts to the White River and implementation of the on-farm features and operation of the project to achieve the planned environmental benefits emerged as the primary issues of concern to the agencies and the public. Impacts to the White River were analyzed and considered including cumulative impacts of the possible future projects in the basin. The construction of the on-farm features and operation of the environmental features are part of the project and will be addressed in the Project Cooperation Agreement and the operation plan. Navigation and environmental interests were concerned about the operation of the pumping station and pump cut-off levels. The operational plan for the pumping station will reflect the varying monthly required instream flows at the Clarendon, Arkansas, gage as analyzed for the plan as follows:

Month	Minimum Instream Flow (cfs)
January	19610
February	22700
March	27610
April	36940
May	36640
June	21220
July	10670
August	9650
September	9650
October	9650
November	11050
December	17590

The navigation interests also expressed concern about the possible impact of the pumping on the reauthorized White River Navigation to Newport, Arkansas, Project. The navigation project is being designed to allow safe navigation for channel flow rates in the White River that are equaled or exceeded 95% of the time. The 95% flow for the White River is below the minimum instream flow requirements (shown in the table above) that will govern Grand Prairie withdrawals. Therefore, the Grand Prairie Area Demonstration Project will have no effect on the reauthorized navigation project.

The project components have been designed in sufficient detail to evaluate impacts of the project. The design of specific project features will be refined prior to their construction. Additional activities to be conducted during design include evaluation of opportunities to further avoid or minimize adverse impacts, development of a project monitoring plan, and any appropriate NEPA documentation and coordination. Also, a study is being conducted to identify additional features for aquifer protection, waterfowl conservation, and other environmental benefits.

CONCLUSIONS

I have reviewed and evaluated all documents pertaining to the recommended plan for the Grand Prairie Area Demonstration Project separable element of the Grand Prairie Region and Bayou Meto Basin, Arkansas, Project, including the views of the State, other agencies and the public. I find that the recommended plan is consistent with national environmental statutes, applicable executive orders, and other Federal planning requirements. The recommended plan avoids and minimizes adverse environmental effects to the extent practicable and adequately compensates for unavoidable impacts to significant resources. The public interest will best be served by implementing the recommended plan described in the General Reevaluation Report and Final Environmental Impact Statement.

25 Feb 00
Date

Phillip R. Anderson
Phillip R. Anderson
Major General, U.S. Army
President, Mississippi
River Commission