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A Cultural Resources Survey of the Big Lake Floodway Ditch Bank Repair Project, Mississippi County, Arkansas

A Negative Report

U.S. Army Corps of Engineers
Memphis District

Jimmy D. McNeil

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February, 1986

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ABSTRACT

On 9 January 1986, an intensive cultural resources survey was conducted by the Environmental Analysis Branch of the U.S. Army Corps of Engineers, Memphis District, over approximately 0.46 acres of plowed field. The proposed work includes repair and maintenance of the existing ditch bank. Maintenance may include grading and riprapping the top bank. A pedestrian survey failed to locate any prehistoric, historic or architectural sites within the project right-of-way.

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Maps

Introduction

An intensive survey for cultural resources was conducted by Memphis District archeologist, Mr. Jimmy D. McNeil on 9 January 1986, within the ditch maintenance right-of-way as directed by the U.S. Army Corps of Engineers, Memphis District. This study was performed as required by the National Environmental Policy Act of 1969 (Public Law 91-190), Protection and Enhancement of Cultural Historic and Cultural Properties (36 CFR 800), and the National Historic Preservation Act of 1966 (Public Law 898-665).

Project Description

The Big Lake Ditch is located in Mississippi County, Arkansas, Township 14N, Range 9E, Section 21, NE 1/4, NE 1/4 of the NE 1/4 of the Manila, AR-MO Quadrangle. The project will affect only the proposed right-of-way and repair area (Map 1). Equipment can be brought in over an existing road.

Environmental Setting

The Big Lake area is characterized by cool, wet winters and hot, humid summers. Typically, winter rains last for several days duration and cover large areas, but lack the severity of summer storms. Summer thunderstorms are common but isolated and intense, causing localized flooding. The annual mean rainfall is 48 inches.

The soil association in this area is Convent-Morganfield-Crevasse (Ferguson and Gray 1971:4). On the surface, the soil is a fine brown sandy loam. The area is subject to seasonal inundation. The topography of the area is nearly level. However, natural and man-made levees rise above the surface.

The area of maintenance is a ditch bank and field, adjacent to the Big Lake Floodway Ditch. This area supports a profusion of Johnson grass (Sorghum halepense) and scattered willow, cottonwood, elm and other related species

on the fringe of the field. The quality of the "fringe" habitat in the immediate vicinity adjacent to the maintenance area is high for various small mammals and birds as well as numerous lower vertebrates.

Previous Research

Enough work has been conducted in the general area of the project, by such researchers as Phillips, Ford and Griffin (1951), Williams (1956), Morse (1969), Lewis (1974), and Klinger (1978), to isolate and date major cultural periods. However, little survey research has been conducted in the immediate vicinity of the project. The most recent intensive survey work in this area was conducted by American Resources Group, Ltd. (1981) for the Memphis District, U.S. Army Corps of Engineers.

Results of the Records Search

The National Register of Historic Places was consulted and no indications of prehistoric, historic or architectural cultural remains were on record within the project area.

Survey Methodology and Results

The designated project area is approximately 0.46 acres in size. The field was unplanted, providing an excellent view (100% visibility) of the plowed surface. This exposed surface area was searched for features and/or artifacts. As the project area was partially disturbed only the undisturbed portion was walked over. This area was approximately 15 meters wide and 150 meters long. The disturbed areas consisted of a road and old borrow pit. No artifacts nor features were found in the project area.

Recommendations

Based on an infield cultural resources survey and a background search, no evidence of prehistoric, historic or architectural resources exist within the direct impact zone of the borrow area. It is recommended that construction within the project right-of-way be allowed to proceed as planned.

The survey methodology used does not eliminate the possibility of encountering deeply buried sites. Therefore, it is recommended that any site encountered during construction be protected from further damage, by stopping construction until its significance can be determined by the Environmental Analysis Branch, Memphis District Corps of Engineers in conjunction with the Arkansas Office of the Arkansas Historic Preservation Program.

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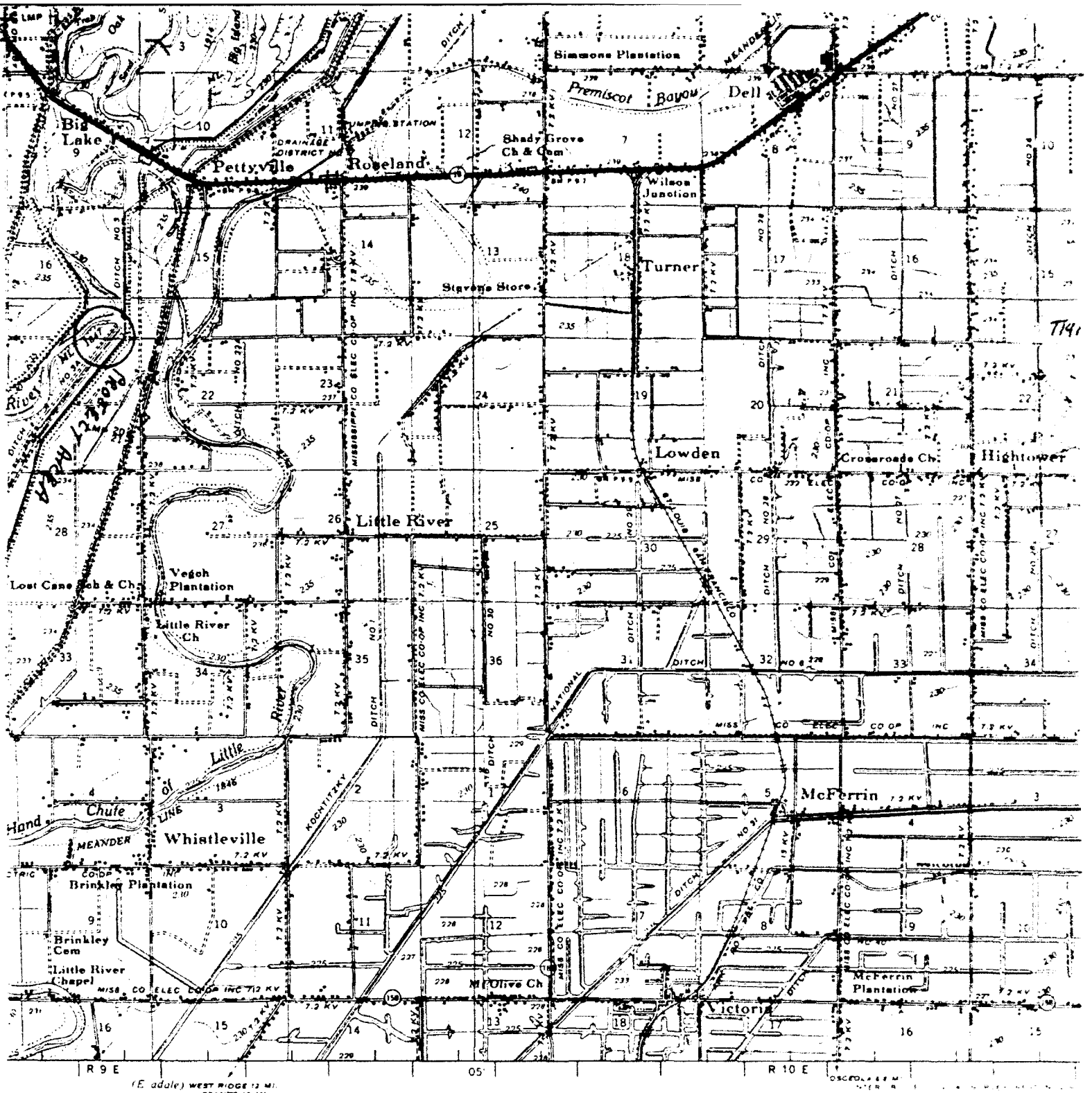

Scale 62,500

1 2 3 4 Miles

2000 3000 4000 5000 6000 7000 Yards

6000 9000 12000 15000 Feet

1000 2000 3000 4000 5000 Meters

Contour interval 5 feet

DATUM IS MEAN SEA LEVEL

THOUSAND METER UNIVERSAL TRANSVERSE MERCATOR GRID ZONE 15 IS INDICATED BY TICKS OUTSIDE OF THE NEATLINE

ARKANSAS STATE GRID ZONE NORTH IS INDICATED BY DOTTED TICKS OUTSIDE THE NEATLINE AT 10,000 FOOT INTERVALS

APPROXIMATE MEAN DECLINATION FOR CENTER OF SHEET

ANNUAL MAGNETIC CHANGE

LEGEND

Levee		Levee mile post
Secondary Levee		Levee station
Retards and dikes		Townhead
Revetment		River Gage

ROAD DATA 1952

In developed areas only through roads are classified

Hard surface heavy duty	4 LANES 2 LANE
Hard surface medium duty	4 LANES 2 LANE
Loose surface graded and drained or narrow hard surface road	
Improved dirt road or street	
Unimproved dirt road or trail	
Route markers Federal, State	45

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