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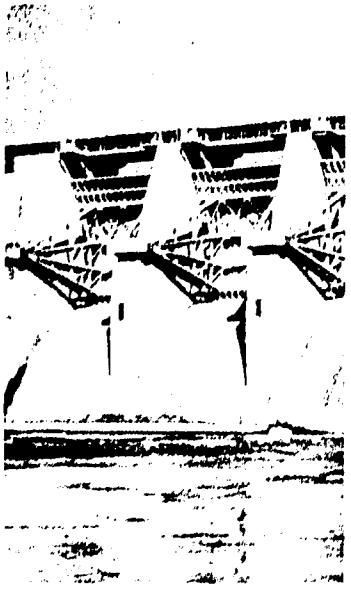

DELINEATION OF WETLANDS OF THE YAZOO RIVER BASIN IN NORTHWESTERN MISSISSIPPI

by

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13. ABSTRACT *(Maximum 200 words)*

This study was designed to delineate approximate wetland boundaries and estimate acreage and location of wetlands in the 4.2-million acre Yazoo River Basin in northwestern Mississippi. It is part of the US Army Engineer District, Vicksburg, reevaluation of engineering, economic, and environmental aspects of the unconstructed features of the Upper Yazoo River and Steele Bayou Projects. The "Federal Manual for Identifying and Delineating Jurisdictional Wetlands" was used as a technical basis for the delineation. The Manual uses a three-parameter approach, considering vegetation, hydrology, and soils, in order to identify a wetland. It was recognized early in the study that the soils provided the best diagnostic parameter in the Yazoo Basin, and much of the subsequent effort was centered on refining the use of this parameter in the study area. Based on field observations at 275 sites and extrapolation from soil survey maps, approximately 69 percent of the study area was determined to be wetlands for planning purposes. Wetland acreages in the 20 counties in the study area range from 80.9 percent of the total county area in Humphreys County to only 3.7 percent of the total county area in Tate County.

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PREFACE

This study was conducted by the Wetlands Research Team (WRT), Environmental Laboratory (EL), US Army Engineer Waterways Experiment Station (WES), at the request of the US Army Engineer District (USAED), Vicksburg. The objectives of the study were to delineate general wetland boundaries within the 4.2-million acre Yazoo River Basin in northwestern Mississippi and to estimate the acreage and location of wetlands and other waters of the United States.

Subsequent to the completion of the preliminary data collection for the study (Summer 1989), the US Army Corps of Engineers (Corps) issued regulatory guidance (Regulatory Guidance Letter 90-7) that clarifies the concept of "normal circumstances", a phrase used in the Corps and Environmental Protection Agency's definition of wetlands to describe the conditions under which wetlands are normally found.

The 1989 Federal Manual for Identifying and Delineating Jurisdictional Wetlands defines "normal circumstances" in a manner consistent with the definition used by the Soil Conservation Service (SCS) in its administration of the Swampbuster provisions of the Food Security Act. Both the SCS and the 1989 Manual interpret "normal circumstances" as the soil and hydrologic conditions that are normally present, without regard to whether the vegetation has been removed. The regulatory guidance referenced above states that prior converted croplands generally do not support a prevalence of hydrophytic vegetation and as such are not subject to regulation under section 404 of the Clean Water Act. Prior converted cropland is defined by the SCS as wetlands which were both manipulated (drained or otherwise physically altered to remove excess water from the land) and cropped before 23 December 1985, to the extent that they no longer exhibit important wetland values. Specifically, prior converted cropland is inundated for no more than 14 consecutive days during the growing season. This would result in an overall reduction of 1.9 million acres (44%) of regulated wetlands within the study area.

In addition, due to provisions of the 1992 Energy and Water Development Appropriations Act, the 1989 Federal Manual for Identifying and Delineating Jurisdictional Wetlands is no longer used by the Corps of Engineers for wetland identification and delineation. On August 14, 1991, the Environmental Protection Agency published in the Federal Register proposed revisions to the 1989 Manual. Until such time that a new Federal wetland delineation manual is adopted, the Corps of Engineers is using the 1987 Corps of Engineers Wetlands Delineation Manual for wetland jurisdictional determinations. With the normal circumstance guidance (Regulatory Guidance Letter 90-7) in place, the 1987 manual yields similar wetland determinations as the 1989 manual.

Users of the information in this report should note that much of the land identified as wetland would qualify as prior converted cropland and as such, is not subject (in most cases) to regulation under Section 404 of the Clean Water Act. Other subsequent policy changes with regard to Federal wetland delineation methods should also be taken into consideration if the information contained in this report is used to calculate the extent of wetlands. However, for planning purposes (the intent of this study) the information contained in this paper is applicable with the exceptions noted in this paragraph.

This report was prepared by many people representing a number of Federal agencies and private organizations. Those individuals primarily responsible for report writing include Mr. William N. Kirchner, while on detail to the WRT from Region 6 of the US Environmental Protection Agency; Ms. Barbara A. Kleiss and Mr. Ellis J. Clairain, Jr., of the WRT, EL; and Messrs. W. Blake Parker and Charles J. Newling, private consultants to the WRT, representing Hydricsoils, Inc., and Wetlands Science Applications, Inc., respectively. Technical review was provided by Dr. Thomas H. Roberts of the Resource Analysis Group (RAG), and Mr. James W. Teaford, Dr. Steven W. Sprecher, and Dr. James S. Wakeley of the Wetlands and Terrestrial Habitat Group (WTHG), Environmental Resources Division (ERD), EL. Ms. Karen Dove, ERD, formatted the tables.

Personnel of the WTHG and the RAG, ERD, implemented the study. The wetlands delineation was a coordinated Federal effort conducted by representatives of the USAED, Vicksburg, Regulatory Branch; the US Fish and Wildlife Service, Vicksburg Field Office; the US Department of Agriculture, Soil Conservation Service; and the US Environmental Protection Agency, Regions 4 and 6. Technical support and quality control were provided by Mr. Russell F. Theriot, Environmental Effects of Dredging Programs, EL, and by consultants Mr. Newling and Mr. Parker.

The work was designed and conducted under the technical supervision of Mr. Ellis J. Clairain, Jr., Leader, WRT; under the direct supervision of Mr. Edward C. Brown, Chief, WTHG; and under the general supervision of Dr. Conrad J. Kirby, Jr., Chief, ERD, and Dr. John Harrison, Chief, EL. Commander and Director of WES was COL Larry B. Fulton, EN. Dr. Robert W. Whalin was Technical Director.

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CONVERSION FACTORS, NON-SI TO SI (METRIC) UNITS OF MEASUREMENT

Non-SI units of measurement used in this report can be converted to SI (metric) units as follows:

Multiply	By	To Obtain
acres	4,046.873	square meters
feet	0.3048	meters
inches	2.54	centimeters
miles (US statute)	1.609347	kilometers
square miles	2.589998	square kilometers

I: INTRODUCTION

1. This study was conducted in response to a request from the US Army Engineer District (USAED), Vicksburg, to delineate approximate wetland boundaries as part of the reevaluation of engineering, economic, and environmental aspects of the unconstructed features of the Upper Yazoo River and Steele Bayou Projects.

2. The study was designed to delineate wetlands using as a technical basis the recently published "Federal Manual for Identifying and Delineating Jurisdictional Wetlands" (Federal Interagency Committee for Wetland Delineation (FICWD) 1989). The Manual describes technical criteria, field indicators and methods for identifying and delineating jurisdictional wetlands in the United States. Although the Manual is for the delineation of jurisdictional wetlands, this study was designed to delineate wetlands only for planning purposes, not for jurisdictional purposes. Jurisdictional delineations must be done on a case-by-case basis by careful onsite inspections.

Objectives

3. The objectives of this study were to:

a. Delineate approximate wetland boundaries within the study area using the procedures as outlined in the new "Federal Manual for Identifying and Delineating Jurisdictional Wetlands."

b. Estimate wetland acreage within the study area.

4. This study considered only wetlands and did not address other categories of "special aquatic sites" covered under the Clean Water Act of 1977. Wetlands are defined by the US Environmental Protection Agency (EPA) and the US Army Corps of Engineers (CE) as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas" (33 USC 1344).

Description of the Yazoo River Basin and Study Area

Yazoo River Basin

5. The Yazoo River Basin is a broad drainage area comprising a physiographic subdivision of the lower Mississippi River Alluvial Valley. The Basin covers 13,400 square miles* (8.6 million acres) in the northwestern quarter of Mississippi (USAED, Vicksburg 1975). It is bordered on the north and east by the Coldwater and Tippah River watersheds and on the west by the Mississippi River main-line levee. The southern boundary is formed by the drainage divide of the Big Black River.

Study Area

6. The study area encompasses 6,600 square miles (4.2 million acres) including all or part of 20 counties within the Yazoo River Basin (Figure 1) in an area commonly referred to as the "Delta". It extends from just below Memphis, TN, to Vicksburg, MS. The eastern boundary is formed by an abrupt hill line (the loessial bluff escarpment) and includes valley areas leading up to the dams of four CE lakes (Arkabutla, Sardis, Enid, and Grenada). Terrain in the Delta is flat with an average slope from north to south of 0.5 ft per mile. While in general the Delta is typically flat, some local relief ranging from 5 to about 25 ft is provided along **point bars,**** **meander scars**, and **natural levees**. Elevations in the northern portion of the study area range from 205 to 210 ft, mean sea level (MSL), and fall to 85 to 90 ft, MSL, in the southern end near Vicksburg. Significant topographic features characteristic of the Delta, in addition to existing riverine systems, are the many abandoned channels, **channel scars** and **oxbow remnants** of earlier Mississippi River beds (USAED, Vicksburg 1975).

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*A table of factors for converting non-SI units of measurement to SI (metric) units is presented on page 5.

**See Glossary (Appendix A) for definitions of terms printed in boldface.

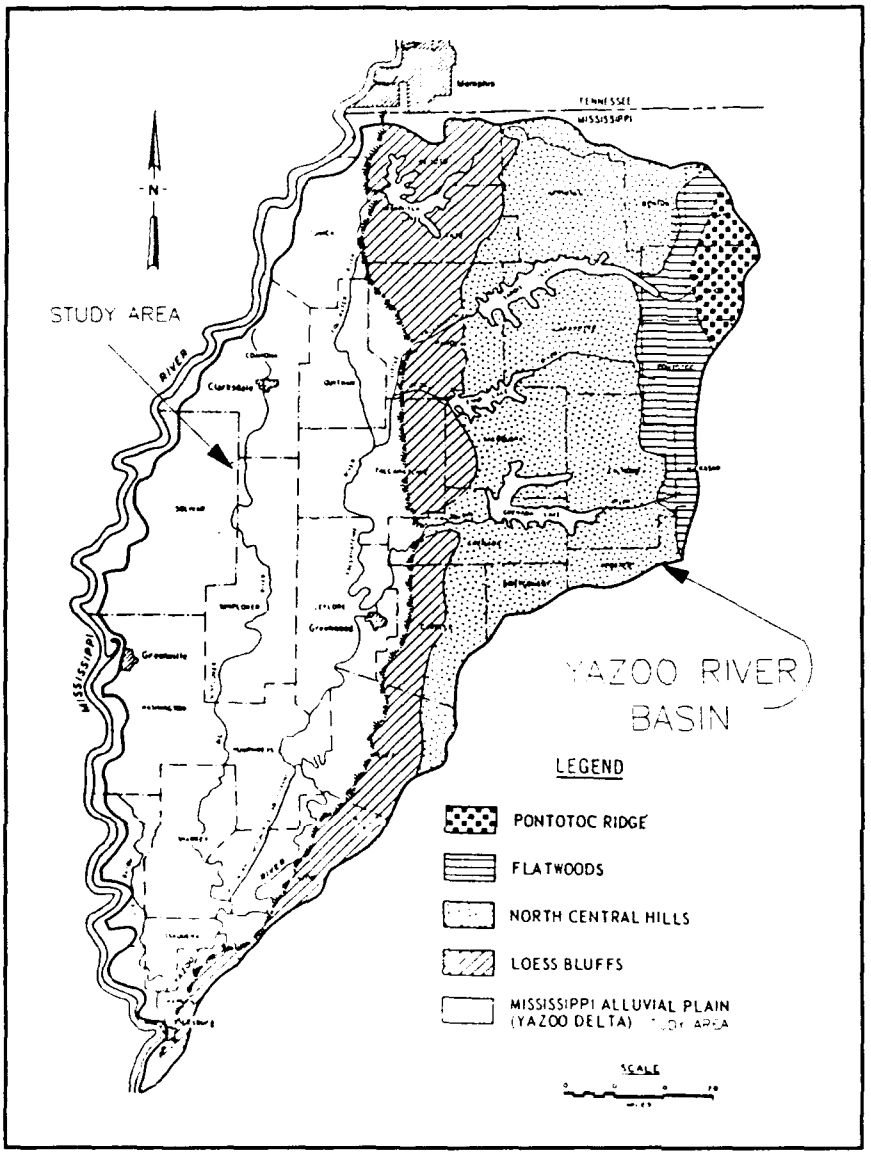

Figure 1. Physiographic regions of the Yazoo River Basin.

7. Anthropogenic alterations (constructed levees, channel modifications, water control structures and pumping plants) have modified the hydrologic regime of the Basin, directly impacting principal geological forces that shape the land. Modification of the original hydrology of the river systems in the Basin has been followed by increased flood protection, intensification of agriculture, and clearing of marginal land for crops, especially soybeans. Consequently, by 1975, 55 percent of the Yazoo Basin was intensively cultivated for row crops. The intensively farmed cropland is found primarily in the Delta and, by 1975, approximately 70 percent of that land had been committed to agricultural use (USAED, Vicksburg 1975). Between 1975 and 1985, additional low-lying wetlands and wooded areas were cleared for soybean production. However, such clearing declined sharply following the decline in soybean prices in the late 1970's.

8. The climate of the study area is hot and humid. Summers are long and hot with relative humidities averaging 75 percent. Annual precipitation averages 52 in. for the study area, with winter and spring rains (November through April) contributing over 30 in. to the total. Recorded extremes in annual precipitation have ranged from a minimum of 38 in. to a maximum of 70 in. (USAED, Vicksburg 1975). The area falls within the thermic soil temperature regime and the growing season, based on soil temperature, extends from February through October (USDA Soil Survey Staff 1975).

II: METHODS

Background

9. The "Federal Manual for Identifying and Delineating Jurisdictional Wetlands" describes technical criteria, field indicators, and methods for determining the upper boundary of a wetland. For an area to be considered a wetland, it must possess three essential characteristics: (1) hydrophytic vegetation (i.e., plant species typically adapted for life in saturated soils), (2) hydric soils (i.e., soils showing evidence of development under anaerobic conditions that occur during prolonged soil saturation), and (3) wetland hydrology (i.e., periodic or permanent inundation or saturation) (FICWD 1989). Technical criteria (Table 1) are mandatory and must be met for an area to be considered a wetland. The Manual provides methods for determining whether field indicators of hydrophytic vegetation, wetlands hydrology and hydric soils are present in an area. In general, if indicators of all three parameters are present, the area is designated a wetland. Under most circumstances, if any of the three parameters is absent, the area is designated a nonwetland.

Assumptions

10. Early in the planning stages of the study representatives from all of the participating state and federal agencies discussed assumptions about the vegetation, hydrology and soils of the Delta. These assumptions were based on the combined knowledge and field experience of the participants. The assumptions were used to help focus the field sampling effort in order to extract the most useful information from the limited time period available to perform field work. The four primary federal agencies, the US Army Corps of Engineer, the US Environmental Protection Agency, the US Fish and Wildlife Service and the Soil Conservation Service agreed to these assumptions during a meeting held on 5 June 1989.

Vegetation

11. Based on the indicator status listed in the "National List of Plant Species That Occur in Wetlands: Southeast (Region 2)" (Reed 1988), it was agreed that virtually all dominant, native plants that are presently growing in the Delta would be listed as **"facultative," "facultative wetland,"** or **"obligate."** Therefore, virtually the entire Basin would qualify as having hydrophytic vegetation, and detailed examination of the vegetation would not yield a significant amount of information useful for the delineation of wetlands. This assumption was tested and verified by a cursory examination of the vegetation during the field sampling phase.

12. Although the interagency group agreed that the remaining natural vegetation in the Delta was hydrophytic, it was recognized that cleared agricultural land would be the most prevalent or normal condition for the majority of the study area. Therefore, in accordance with the disturbed area criteria in the Manual, in areas where indicators of hydrology and hydric soils were present, it was necessary to assume that the typical plant community on the cropland prior to agricultural conversion would have met the criteria for hydrophytic vegetation. Observation of wooded areas in close proximity to cleared agricultural land supported this assumption.

Hydrology

13. It was also recognized early in the study that quantitative hydrologic data (such as measurements from ground-water wells, direct evidence of soil saturation, soil oxygen content, redox potential, etc.) were virtually nonexistent for the Delta. Furthermore, given the time constraints of this study, it was not possible to collect quantitative data. Therefore, it was necessary in most situations to use field indicators to determine whether the wetland hydrology criteria were met. The field indicators often noted in the Delta included visual observation of soil saturation, surface water ponding, depth to water tables, water marks on trees, and drift lines.

Table 1

Wetland Criteria

A. The criterion for hydrophytic vegetation is met when, under normal circumstances:

1. more than 50 percent of the composition of dominant species from all strata are **obligate** (OBL), **facultative wetland** (FACW), and/or **facultative** (FAC) species, or

2. a frequency analysis of all species within the community yields a prevalence index value of less than 3.0 (where OBL = 1.0, FACW = 2.0, FAC = 3.0, **facultative upland** (FACU) = 4.0, and **upland species** (UPL) = 5.0).

B. The criterion for hydric soils is met when the National Technical Committee for Hydric Soils (US Department of Agriculture 1987) criteria for hydric soils are met. These criteria are:

1. all Histosols except Folists; or

2. soils in Aquic suborders, Aquic subgroups, Albolls suborder, Salorthids great group, or Pell great groups of Vertisols that are:

a. somewhat poorly drained and have a water table less than 0.5 ft from the surface for a significant period (usually a week or more) during the **growing season**, or

b. poorly drained or very poorly drained and have either:

(1) water table at less than 1.0 ft from the surface for a significant period (usually a week or more) during the growing season if permeability is equal to or greater than 6.0 in./hr in all layers within 20 in., or
(2) water table at less than 1.5 ft from the surface for a significant period (usually a week or more) during the growing season if permeability is less than 6.0 in./hr in any layer within 20 in., or

3. soils that are ponded for long duration or very long duration during the growing season; or

4. soils that are frequently flooded for long duration or very long duration during the growing season.

C. Wetland hydrology criterion is met when an area is saturated to the surface or inundated at some point in time during an average rainfall year, as defined below.

1. Saturation to the surface normally occurs when soils in the following natural drainage classes meet the following conditions:

a. in somewhat poorly drained mineral soils, the water table is less than 0.5 ft from the surface for usually a week or more during the growing season, or

b. in low permeabilities (<6.0 in./hr), poorly drained or very poorly drained mineral soils, the water able is less than 1.5 ft from the surface for usually a week or more during the growing season, or

c. in more permeable (greater than or equal to 6.0 in./hr), poorly drained or very poorly drained mineral soils, the water table is less than 1.0 ft from the surface for usually a week or more during the growing season, or

d. in poorly drained or very poorly drained organic soils, the water table is usually at a depth where saturation to the surface occurs more than rarely.

2. An area is inundated at some time if ponded or frequently flooded with surface water for 1 week or more during the growing season.

Source: Federal Manual for Identifying and Delineating Jurisdictional Wetlands (FICWD 1989).

14. A confounding factor influencing the hydrology was the existence of extensive drainage and flood protection works, both Federal and private. It was agreed that surface waters could often be managed adequately to reduce the duration of inundation from ponding or flooding. However, due to the high annual rainfall and the low natural permeability of the alluvial soils, it was suspected that some surface water ponding would still occur, even with drainage projects. It was also believed that surface drainage systems would not have a significant impact on ground-water hydrology in sites with heavy clay soils that usually have poor internal drainage (i.e., "tight" soils). Therefore, as quantitative hydrology information was not available, a conservative approach was taken and it was assumed that wetland hydrology continued to exist in most of the "tight" alluvial soils, despite recent changes in hydrology due to drainage projects.

Soils

15. Given the scope of the project (4.2 million acres) and the recognized limitations of using vegetation and hydrology for wetland delineation purposes, it was suggested that the most expeditious and accurate means to locate and estimate the acreage of wetlands was to use Soil Conservation Service (SCS) county soil maps. Information on the hydric status of soil series was available from "Hydric Soils of the United States" (US Department of Agriculture 1987), and maps and information on acreages were available through the local SCS office. However, field sampling was needed to verify the concept that soil mapping delineations were good indicators of wetland boundaries in the Delta.

16. To facilitate and focus the field effort, soil capability subclasses were used to establish three soil groups: nonwetland soils, wetland soils, and undetermined soils. Nonwetland soils were those soils with a **capability class** of 1 or 2 or **capability subclass** of e or s. Wetland soils were those soils with a capability subclass of 4w or 5w. Soils with a capability subclass of 3w were put in the undetermined group. These undetermined units were assumed to include both hydric and nonhydric soils and were, therefore, the primary focus of the sampling effort. The agencies involved also thought that as the sampling effort focused on these soils, patterns would develop to split the 3w soils into their hydric and nonhydric components, and the sampling effort would be adjusted as the data became available.

Preliminary Data Collection

17. Preliminary identification of areas with hydric soils was made by comparing the SCS's soil survey for each of the 20 counties within the study area with "Hydric Soils of the United States" (US Department of Agriculture 1987). Topographic maps, soil surveys, and color and infrared aerial photography were used in conjunction with field reconnaissance to develop familiarity with the hydrology, soil types, and vegetation in the study area. Based on this preliminary characterization, a delineation approach was selected and a sampling protocol was finalized.

18. Eight counties (Bolivar, Coahoma, Humphrey, Leflore, Quitman, Sharkey, Tallahatchie, and Washington) were selected for sampling. These counties reflected hydrologic characteristics of both the northern and southern portions of the study area. As these counties contained almost all the soil mapping units found in the Delta, results on the relationship between soil type and wetland occurrence were extrapolated to the remainder of the study area.

19. Four field teams were formed from an interagency group of trained and experienced wetland specialists, wetland ecologists, and soil scientists. In addition to the four teams, a quality control team was assembled to provide oversight responsibility, analyze results, and ensure consistency among the four teams. A listing of the field teams, quality control staff, and their agency affiliations is given in Appendix B.

Collection of Field Data

20. Field data were collected by (1) using point samples placed within specific soil mapping units or (2) establishing transects that crossed several different soil mapping units. The sampling points were located in areas representative of the different soil mapping units. Where mapping units were homogeneous along transects, sampling intensity was reduced.

21. At each observation point, the vegetation, soils, and hydrology were characterized and documented on a data form. Vegetation was sampled by visually selecting the dominant species. Hydrologic field indicators were noted and recorded when present. Soil mapping units were verified by the SCS soil scientists by observing soil profiles in holes 48 to 60 inches deep. When soil scientists were unavailable, soils were examined for hydric soil indicators by digging a hole approximately 18 inches deep or by using a soil auger.

III: RESULTS AND DISCUSSION

22. Wetland boundary determinations were made on 275 sites distributed among the eight counties. Based on this sample the quality control team compared soil characteristics with field determinations of wetland and nonwetland areas and determined that utilization of SCS soil map units for wetland delineation in the Delta was adequate. Results were extrapolated to other counties in the study area, and wetland acreage was calculated based on soil mapping units.

Vegetation

23. The assumptions concerning hydrophytic vegetation were found to be valid. In no instance where natural vegetation was still present was an area determined to not be a wetland based on vegetation; all naturally vegetated sites supported a prevalence of hydrophytic vegetation. However, subtle differences were noted in many plant communities from site to site. For example, wetland plant communities on ridges and well-drained areas were different from those found in lower, less well-drained areas, but they still satisfied the criteria for hydrophytic vegetation.

Hydrology

24. Assumptions concerning hydrology in the study area, specifically, whether ground water levels have been impacted significantly by drainage projects, could not be addressed conclusively. An effort was made to obtain quantitative information, but only one site was located which had a ground water well in a wetland area. This well had only recently been installed, so it could not be used to determine long-term impacts of drainage projects. Although casual observations suggested that the water table has been lowered in portions of the Delta, there was no strong evidence (i.e., plant succession progressing toward upland species, development of bright mottles, etc.) suggesting that the wetland hydrology criteria are no longer met. The conclusion of the interagency group was to assume that in areas with heavy clay soil, ground water continues to be at or very near the surface for a considerable period of the growing season.

25. It was evident that ditching and grading have altered the duration of inundation, especially on the higher areas. The effect of these activities in lower areas was less obvious; however, evidence suggested that these lands have retained their wetland hydrology characteristics. Long-term quantitative data from ground water wells and water level recorders in many wetlands in several different soil types are needed to resolve the uncertainty concerning hydrology in the study area.

Soils

26. Supported by field observation, a rationale was developed for classifying the soils within the Delta as hydric or nonhydric. A list of hydric soil mapping units by county for the entire Yazoo Basin, including those listed in "Hydric Soils of the United States" (US Department of Agriculture 1987), was furnished by the SCS along with data on capability class and subclass, flooding, slope, and depth to water table. Each mapping unit was reviewed according to the criteria (flooding, ponding, and depth to high water table) listed in the Manual (FICWD 1989) and was assigned a wetland or nonwetland classification. Most of the soils examined in the Delta clearly fit into either the hydric or nonhydric classification presented in "Hydric Soils of the United States" (US Department of Agriculture 1987).

27. All soils with capability class and subclass of 1 or 2, meeting all other nonhydric soil criteria, were placed in the nonwetland category. Examples of nonhydric soil series in the Basin were Beulah, Bosket, Bowdre, Commerce, Crevasse, Dubbs, Dundee, Falaya, Ina, Pearson, and Robinsonville. Although these soil series are considered nonhydric, an onsite inspection of any area mapped as these series might disclose localized conditions such as hydric inclusions or incorrect mapping that would justify calling that site a jurisdictional wetland for regulatory purposes.

28. Those soil series that were considered hydric in all phases and all mapping units were Alligator, Calhoun/Bonn Complex, Dowling,

Rosebloom, Sharkey, Souve, and Waverly. Sites with these soil series were considered wetlands. Again, it was recognized that an onsite inspection of any area with these soil series might disclose localized conditions such as nonhydric inclusions or incorrect mapping that would justify calling that site a nonwetland for regulatory purposes.

29. From the outset of the field investigation, however, it was clear that certain soil series did not always support wetlands, even though they were classified as hydric in "Hydric Soils of the United States" (USDA 1987). The Forestdale, Tunica, and Brittain series presented the most problems. As anticipated, these soils have a 3w capability subclass. They occupy large acreages, and were all mapped prior to the publication of Soil Taxonomy (US Department of Agriculture Soil Survey Staff 1975). Furthermore, the series covered two **drainage classes**, poorly drained and somewhat poorly drained.

30. Forestdale mapping units were examined at 86 sites in eight counties; Tunica at 25 sites in four counties; and Brittain at 7 sites in one county. Each of the mapping units within these series was reviewed and a decision was made whether it should be considered hydric. Decisions were made in coordination with SCS soil scientists and were based on data collected during this study. Sloping phases with coarser or better drained surface textures were found to be nonhydric for the purposes of this study. Finer textured, level to nearly level phases of soils generally were found to be hydric. Accordingly, the Forestdale silt loams and coarser textured phases and all sloping phases of Forestdale were listed as nonhydric. All Forestdale mapping units with silty clay loam and finer textures on level and nearly level slopes were listed as hydric. Sloping phases of Tunica with surface textures of silty clay loams and coarser were listed as nonhydric. The silty clay and finer textured phases of Tunica on level and nearly level slopes were listed as hydric. Brittain mapping units on level and nearly level slopes were listed as hydric. Sloping phases of Brittain were listed as nonhydric. A summary of these divisions is given in Table 2.

31. Field observations revealed several major reasons for the presence of both hydric and nonhydric mapping units within a soil series with the 3w capability subclass. First, in the period of over two decades during which most of the soil mapping was completed in the Yazoo Basin, soil science has progressed in its understanding of soil morphology and classification. With this progress, revisions have been made continuously in the classification and mapping of these soils. Each revision improved the understanding of the soils, but has tended to render earlier mapping efforts obsolete to one degree or another. Thus, the results of onsite inspections based on current soil science were not always consistent with the soil map of the site. Correct interpretation of these situations has to be based on actual site conditions viewed from the current understanding of soil taxonomy.

32. The Forestdale series is an example of a soil that has seen substantial revision. Originally, the series encompassed two drainage classes, poorly drained and somewhat poorly drained. Soils series are now mapped only within a single drainage class. What is particularly difficult in this case is that the split between poorly drained and somewhat poorly drained is normally an excellent break between those soils that are hydric and those that are not. According to current, revised concepts all Forestdale soils are poorly drained and in the Delta are hydric. Those somewhat poorly drained areas previously mapped as Forestdale would now be some other series and would, for the most part, be classified as nonhydric.

33. Brittain is also an example of a Yazoo Basin soil series that originally was described across two drainage classes, poorly drained and somewhat poorly drained. In this case, however, the Brittain description was so broad and the two extremes were of sufficient difference that Brittain was dropped as an active series, and any areas so mapped would now be reclassified to totally different series. The poorly drained portion of Brittain would now likely be classified as Amagon, which is hydric. The somewhat poorly drained portion was nonhydric.

34. A second major reason for the presence of hydric and nonhydric phases of the same series was drainage efforts. As noted previously, surface drainage or agricultural water management systems have had the desired effect of removing excess water, particularly from soils with somewhat coarser

Table 2

Soil Series in the Yazoo Basin Determined to Have Internal Separations Between Hydric and Nonhydric Mapping Units

Soil Mapping Unit	Status	Basis for Decision
Brittain silt loam, nearly level phase	Hydric	D
Brittain silt loam, gently sloping phase	Non-hydric	C
Brittain silty clay loam, nearly level phase	Hydric	D
Brittain silty clay loam, gently sloping phase	Non-hydric	C
Forestdale very fine sandy loam, nearly level phase	Non-hydric	A
Forestdale silt loam, level phase	Non-hydric	A
Forestdale silt loam, 0-2% slopes	Non-hydric	A
Forestdale silt loam, nearly level phase	Non-hydric	A
Forestdale silty clay loam, 0-2% slopes	Hydric	B
Forestdale silty clay loam, nearly level phase	Hydric	B,D
Forestdale silty clay loam, gently sloping phase	Non-hydric	C
Forestdale silty clay, nearly level phase	Hydric	B,D
Forestdale silty clay, gently sloping phase	Non-hydric	C
Tunica silty clay loam, 0-2% slopes	Non-hydric	A
Tunica silty clay, 0-2% slopes	Hydric	B,D
Tunica silty clay, gently sloping phase	Non-hydric	C
Tunica clay, 0-2% slopes	Hydric	B,D

A = non-hydric due to coarser surface texture.
B = hydric due to finer surface texture.
C = non-hydric due to slope.
D = hydric due to lack of slope.

or better drained surface horizons. In some cases, the land surface had been physically levelled. Land leveling makes soil interpretation very difficult due to altered horizons (e.g., shaving off or burying the original surfaces); in combination with well-positioned ditches it is also effective in removing surface water from soils that historically were probally quite wet. What must be considered in these situations is whether or not the changes have altered the hydrology such that the hydrology criteria are no longer met. It was considered that those mapping units with coarser surface textures were most likely to be influenced by these drainage projects.

IV: CONCLUSIONS

35. Based on field observations at 275 sites and extrapolation from soil survey maps, approximately 69 percent (2,922,962 acres) of the study area was determined to be wetlands. Acreage by county is shown in Table 3. Additional data and research are needed to characterize certain physical parameters (e.g., elevation, hydroperiod, and depth to water table) and correlate these physical parameters to soil type. Such additional data could lead to further refinement of the wetland acreages and provide more effective and consistent wetland boundary determinations in the Delta. Soils information is being digitized as part of another study for inclusion in a geographic information system. The digitized information will provide map displays of wetland locations and refined wetland acreages. These maps will be useful for project planning but will not substitute for field inspection for regulatory decisions.

36. Appendix C includes information for all soil types mapped in each of the 20 counties. Table 4 contains baseline data including soil series name, capability class, flooding potential, range in depth to water table, and acreage, for each hydric mapping unit in the Delta and should prove to be useful in wetland inventories throughout the Mississippi River Alluvial Plain. It is based on the rationale developed from the field work and the combined expertise of the participants.

Table 3

Wetland Acreage by County

County	Wetland Acres	Total Acres	Percent of County*
Bolivar	382,089	586,880	65.1
Carroll	18,520	408,320	4.5
Coahoma	168,397	364,800	46.2
DeSoto	11,990	283,520	4.2
Grenada	34,133	277,120	12.3
Holmes	67,527	139,126	48.5
Humphreys	212,287	262,400	80.9
Issaquena	182,070	265,240	68.6
Leflore	237,139	376,320	63.0
Panola	31,288	438,400	7.1
Quitman	186,209	263,680	70.6
Sharkey	221,130	279,040	79.2
Sunflower	272,775	443,520	61.5
Tallahatchie	147,025	412,160	35.7
Tate	9,111	245,120	3.7
Tunica	144,687	293,120	49.4
Warren	121,360	362,240	33.5
Washington	300,160	465,520	64.5
Yalobusha	13,405	315,520	4.2
Yazoo	159,900	600,320	26.6
TOTAL	**2,921,202**		

*Based on the **total** county area and not the area confined to the study area (4.2 million acres).

Table 4

USDA, Soil Conservation Service
Hydric Soils Information Summary

Map Symbol	Soil Series Map Unit Name	Capability Class	Annual Flood	Range of Depth to Seasonal High Water Table (feet)	Acres	Percent
Bolivar County:						
Aa	Alligator clay, level phase	3W	Rare	0.50-2.00	810	0.1
Ab	Alligator clay, nearly level phase	3W	Rare	0.50-2.00	28,593	4.9
Ac	Alligator clay, gently sloping phase	3E	Rare	0.50-2.00	1042	0.2
Ad	Alligator silty clay, level phase	3W	Rare	0.50-2.00	227	<0.1
Ae	Alligator silty clay, nearly level phase	3W	Rare	0.50-2.00	7104	1.2
Ag	Alligator silty clay, gently sloping phase	3E	Rare	0.50-2.00	337	0.1
Ah	Alligator silty clay loam, nearly level phase	3W	Rare	0.50-2.00	1311	0.2
Bd	Brittain silty loam, nearly level phase (Forestdale)	3W	Rare	0.50-2.00	14,840	2.5
Dc	Dowling clay (Sharkey)	5W	Freq	0.00-2.00	80,563	13.7
Dd	Dowling soils, overwash phases (Sharkey)	5W	Freq	0.00-2.00	23,698	4.0
Fc	Forestdale silty clay, nearly level phase	3W	Rare	0.50-2.00	3198	0.5
Fe	Forestdale silty clay loam, nearly level phase	3W	Rare	0.50-2.00	27,136	4.6
Fh	Forestdale soils, nearly level phase	3W	Rare	0.50-2.00	1244	0.2
Sa	Sharkey clay, level phase	3W	Rare	0.00-2.00	10,619	1.8
Sb	Sharkey clay, nearly level phase	3E	Rare	0.00-2.00	106,490	18.1
Sc	Sharkey clay gently sloping phase	3E	Rare	0.00-2.00	604	0.1
Sd	Sharkey silty clay, level phase	3W	Rare	0.00-2.00	484	0.1
Se	Sharkey silty clay, nearly level phase	3E	Rare	0.00-2.00	47,893	8.2
Sg	Sharkey silty clay, gently sloping phase	3E	Rare	0.00-2.00	490	0.1
Sh	Sharkey silty clay loam, nearly level overwash phase	3E	Rare	0.00-2.00	1545	0.3
Sk	Sharkey very fine sandy loam, nearly level, overwash phase	3E	Rare	0.00-2.00	824	0.1
Sm	Sharkey-Clack soils, nearly level phases (Sharkey, Crevasse)	3E	Rare	0.00-2.00	3242	0.6
Sm	Sharkey-Clack soils, nearly level phases (Sharkey, Crevasse)	4S	Rare	3.50-6.00	*	*
Sn	Sharkey-Clack soils, gently sloping phase (Sharkey, Crevasse)	3E	Rare	0.00-2.00	847	0.1
Sn	Sharkey-Clack soils, gently sloping phase (Sharkey, Crevasse)	4S	Rare	3.50-6.00	*	*
So	Souva Soils (Sharkey)	5W	Freq	0.00-2.00	1163	0.2
Ta	Tunica silty clay, nearly level phase	3W	Rare	1.50-3.00	16,086	2.7
Wa	Waverly silt loam, local alluvium phase (Sharkey)	5W	Freq	0.00-2.00	1699	0.3
	Total				382,089	65.1%
Carroll County:						
17	Chenneby-Arkabutla Association, frequently flooded	4W	Freq	1.00-2.50	5300	1.3
20	Alligator silty clay	3W	Rare	0.50-2.00	770	0.2
22	Arkabutla silt loam, frequently flooded	4W	Freq	1.00-1.50	1960	0.5
23	Chenneby silt loam, frequently flooded	4W	Freq	1.00-2.50	2150	0.5
27	Sharkey clay, frequently flooded	5W	Freq	0.00-2.00	2340	0.6
300	Sharkey clay, ponded	5W	Freq	0.00-2.00	6000	1.5
	Total				18,520	4.5%
Coahoma County:						
Aa	Alligator clay, level phase	3W	Rare	0.50-2.00	7070	1.9
Ab	Alligator clay, nearly level phase	3W	Rare	0.50-2.00	30,432	8.3
Ac	Alligator clay, gently sloping phase	3E	Rare	0.50-2.00	362	0.1

Ad	Alligator silty clay, level phase	3W	Rare	0.50-2.00	379	0.1
Ae	Alligator silty clay, nearly level phase	3W	Rare	0.50-2.00	2163	0.6
Ck	Crevasse soils, nearly level phases (Bruno)	5W	Freq	4.00-6.00	525	0.1
Da	Dowling clay (Sharkey)	4W	Occas	0.00-2.00	34,689	9.5
Db	Dowling soils (Sharkey)	4W	Occas	0.00-2.00	18,475	5.1
Fc	Forestdale silty clay, level phase	3W	Rare	0.50-2.00	1349	0.4
Fd	Forestdale silty clay, nearly level phase	3W	Rare	0.50-2.00	13,539	3.7
Fg	Forestdale silty clay loam, level phase	3W	Rare	0.50-2.00	540	0.1
Fh	Forestdale silty clay loam, nearly level phase	3W	Rare	0.50-2.00	17,325	4.8
Sa	Sharkey clay, level phase	3W	Rare	0.00-2.00	7613	2.1
Sb	Sharkey silty clay, nearly level phase	3E	Rare	0.00-2.00	21,658	5.9
Sb	Sharkey clay, nearly level phase	3E	Rare	0.00-2.00	1792	0.5
Sb	Sharkey silty clay, nearly level phases	3E	Rare	0.00-2.00	*	*
Sb	Sharkey clay, nearly level phase	3E	Rare	0.00-2.00	*	*
Sc	Sharkey clay, nearly level phase, shallow over sand	3E	Rare	0.00-2.00	120	<0.1
Sd	Sharkey silty clay, gently sloping phase	3E	Rare	0.00-2.00	679	0.2
Sd	Sharkey clay, gently sloping phase	3E	Rare	0.00-2.00	147	<0.1
Sd	Sharkey silty clay, gently sloping phase	3E	Rare	0.00-2.00	*	*
Sd	Sharkey clay, gently sloping phase	3E	Rare	0.00-2.00	*	*
Se	Sharkey silt loam, nearly level overwash phase	3E	Rare	0.00-2.00	267	0.1
Sg	Sharkey silty clay, level phase	3W	Rare	0.00-2.00	196	0.1
Sm	Sharkey-Clack soils, nearly level phase (Sharkey, Bruno)	4W	Occas	0.00-2.00	679	0.2
Sm	Sharkey-Clack soils, nearly level phase (Sharkey, Bruno)	3S	Occas	4.00-6.00	*	*
Sn	Sharkey-Clack soils, gently sloping phase (Sharkey, Bruno)	4W	Occas	0.00-2.00	366	0.1
Sn	Sharkey-Clack soils, gently sloping phases (Sharkey, Bruno)	3S	Occas	4.00-6.00	*	*
So	Souva silt loam (Forestdale)	3W	Rare	0.50-2.00	1645	0.5
Ta	Tunica silty clay, nearly level phase	3W	Rare	1.50-3.00	6387	1.8
	Total				168,397	46.2%

De Soto County:

Aa	Alligator clay, nearly level phase	3W	Rare	0.50-2.00	466	0.2
Da	Dowling clay (Sharkey)	4W	Occas	0.00-2.00	1930	0.7
Db	Dowling soils (Sharkey)	4W	Occas	0.00-2.00	2171	0.8
Fc	Falaya and waverly silt loams, local alluvium phases (Arkabutla and Rosebloom)	4W	Freq	1.00-1.50	358	0.1
Fc	Falaya and waverly silt loams, local alluvium phases (Arkabutla and Rosebloom)	5W	Freq	0.00-1.00	*	*
Fd	Forestdale silty clay loam, nearly level phase	3W	Rare	0.50-2.00	1476	0.5
Sa	Sharkey clay, nearly level phase	3E	Rare	0.00-2.00	3066	1.1
Sb	Sharkey clay, level phase	3W	Rare	0.00-2.00	1697	0.6
Sc	Sharkey very fine sandy loam, very gently sloping overwash phase	3E	Rare	0.00-2.00	234	0.1
Wa	Waverly silty clay loam (Rosebloom)	5W	Freq	0.00-1.00	592	0.2
	Total				11,990	4.2%

Grenada County:

AT	Alligator association	5W	Freq	0.50-2.00	2790	1.0
Ac	Alligator clay	3W	Rare	0.50-2.00	416	0.1
Ad	Alligator clay, depressional	5W	Freq	0.50-2.00	381	0.1
As	Alligator silty clay loam	3W	Rare	0.50-2.00	1389	0.5
FC	Falaya-Collins Association	4W	Freq	1.00-2.00	6220	2.2
Fo	Forestdale silty clay loam	3W	Rare	0.50-2.00	337	0.1
WF	Waverly-Falaya Association	5W	Freq	0.50-1.00	12,900	4.7
WF	Waverly-Falaya Association	4W	Freq	1.00-2.00	*	*
Ws	Waverly silt loam	3W	Occas	0.50-1.00	9700	3.5
	Total				34,133	12.3%

Holmes County:

14	Sharkey clay, occasionally flooded	4W	Occas	0.00-2.00	14,484	11.0
16	Sharkey clay, depressional	4W	Occas	0.00-2.00	7635	5.8

17	Sharkey silty clay loam, occasionally flooded	4W	Occas	0.00-2.00	5147	3.9
21	Sharkey clay, frequently flooded	5W	Freq	0.00-2.00	25,748	19.6
28	Forestdale silty clay loam, 0 to 2 percent slopes	3W	Rare	0.50-3.50	10,279	7.8
45	Adler and Bruno soils, frequently flooded	4W	Freq	2.00-3.00	4234	3.2
	Total				67,527	51.4%

Humphreys County:

	Swamp	5W	Freq		2871	1.1
Aa	Alligator clay, level phase	3W	Rare	0.50-2.00	16,016	6.1
Ab	Alligator clay, level overflow phase	5W	Freq	0.50-2.00	1586	0.6
Ac	Alligator clay, nearly level phase	3W	Rare	0.50-2.00	68,045	25.9
Ad	Alligator clay, nearly level overflow phase	5W	Freq	0.50-2.00	5247	2.0
Ae	Alligator clay, gently sloping phase	3E	Rare	0.50-2.00	1546	0.6
Ag	Alligator silty clay loam, nearly level phase	3W	Rare	0.50-2.00	9594	3.7
Ah	Alligator silty clay loam, nearly level overflow phase	5W	Freq	0.50-2.00	1495	0.6
Ak	Alligator silty clay loam, gently sloping phase	3E	Rare	0.50-2.00	224	0.1
Am	Alligator-Dowling clays, overflow phase (Alligator, Alligator)	5W	Freq	0.50-2.00	11,056	4.2
An	Alligator, Dowling, and Forestdale soils, overflow phases (Alligator, Alligator, Forestdale)	5W	Freq	0.50-2.00	20,398	7.8
Da	Dowling clay (Alligator)	4W	Occas	0.50-2.00	21,914	8.3
Db	Dowling clay, overflow phase (Alligator)	5W	Freq	0.50-2.00	6317	2.4
Dc	Dowling soils (Alligator)	4W	Occas	0.50-2.00	8378	3.2
Dd	Dowling soils, overflow phases (Alligator)	5W	Freq	0.50-2.00	1420	0.5
Fa	Forestdale silty clay, nearly level phase	3W	Rare	0.50-2.00	5275	2.0
Fc	Forestdale silty clay loam, level phase	3W	Rare	0.50-2.00	1017	0.4
Fd	Forestdale silty clay loam, nearly level phase	3W	Rare	0.50-2.00	24,008	9.2
Fe	Forestdale silty clay loam, nearly level overflow phase	5W	Freq	0.50-2.00	2679	1.0
Fg	Forestdale silty clay loam, nearly level shallow phase	3W	Rare	0.50-2.00	893	0.3
Fk	Forestdale silty clay loam, gently sloping overflow phase	5W	Freq	0.50-2.00	1291	0.5
Fn	Forestdale silt loam, nearly level overflow phase	5W	Freq	0.50-2.00	747	0.3
Ia	Iberia clay (Sharkey)	3E	Rare	0.00-2.00	270	0.1
	Total				212,287	80.9%

Issaquena County:

Da	Dowling clay (Sharkey)	4W	Occas	0.00-2.00	31,813	12.0
Db	Dowling soils (Sharkey)	4W	Occas	0.00-2.00	1485	0.6
Fd	Forestdale silty clay loam, 0 to 2 percent slopes	3W	Rare	0.50-2.00	380	0.1
Sa	Sharkey clay, 0 to 1 percent slopes	3W	Rare	0.00-2.00	740	0.3
Sb	Sharkey clay, 0 to 2 percent slopes	3E	Rare	0.00-2.00	23,375	8.8
Sc	Sharkey clay, 2 to 5 percent slopes	3E	Rare	0.00-2.00	910	0.3
Se	Sharkey silty clay loam, 0 to 2 percent slopes	3E	Rare	0.00-2.00	9025	3.4
Sf	Sharkey fine sandy loam, overwash, 0 to 2 percent slopes	3E	Rare	0.00-2.00	865	0.3
Sk	Sharkey silt loam, overwash, 0 to 2 percent slopes	3E	Rare	0.00-2.00	2380	0.9
Sr	Sharkey and Dowling clays (Sharkey, Sharkey)	5W	Freq	0.00-2.00	95,177	35.8
Sr	Sharkey and Dowling clays (Sharkey, Sharkey)	5W	Freq	0.00-2.00	*	*
Ta	Tunica clay, 0 to 2 percent slopes	3W	Rare	1.50-3.00	15,920	6.0
	Total				182,070	68.6%

LeFlore County:

Aa	Alligator clay, level phase	3W	Rare	0.50-2.00	7983	2.1
Ab	Alligator clay, level overflow phase	5W	Freq	0.50-2.00	66	<0.1
Ac	Alligator clay, nearly level phase	3W	Rare	0.50-2.00	61,955	16.5
Ad	Alligator clay, nearly level overflow phase	5W	Freq	0.50-2.00	8772	2.3
Ae	Alligator clay, gently sloping phase	3E	Rare	0.50-2.00	3536	0.9
Af	Alligator silt loam, overwash phase	5W	Freq	0.50-2.00	694	0.2

Ag	Alligator silty clay loam, nearly level phase	3W	Rare	0.50-2.00	17,545	4.7
Ah	Alligator silty clay loam, gently sloping phase	3E	Rare	0.50-2.00	836	0.2
Ak	Alligator and Dowling clays, overflow phases (Alligator, Alligator)	5W	Freq	0.50-2.00	21,611	5.7
Am	Alligator, Dowling, and Forestdale soils (Alligator, Alligator, Forestdale)	3E	Rare	0.50-2.00	5094	1.4
An	Alligator, Dowling, and Forestdale soils, overflow phases (Alligator, Alligator, Forestdale)	5W	Freq	0.50-2.00	2338	0.6
Ao	Alligator-Forestdale soils, gently sloping phase	3E	Rare	0.50-2.00	1103	0.3
Ap	Alligator-Forestdale soils, sloping phases	3E	Rare	0.50-2.00	228	0.1
Ar	Alligator-Forestdale soils, strongly sloping phases	3E	Rare	0.50-2.00	95	<0.1
Da	Dowling clay (Alligator)	4W	Occas	0.50-2.00	37,793	10.0
Db	Dowling soils (Alligator)	3W	Rare	0.50-2.00	19,604	5.2
Fd	Falaya-Ina-Collins soils (Falaya, Adler, Adler)	4W	Freq	1.00-2.00	5217	1.4
Fg	Forestdale silty clay, nearly level phase	3W	Rare	0.50-2.00	76	<0.1
Fh	Forestdale silty clay loam, nearly level phase	3W	Rare	0.50-2.00	28,967	7.7
Fk	Forestdale silty clay loam, nearly level moderately shallow phase	3W	Rare	0.50-2.00	817	0.2
Fm	Forestdale silty clay loam, nearly level overflow phase	5W	Freq	0.50-2.00	1178	0.3
Sa	Sandy alluvial land (Crevasse)	5W	Freq	3.50-6.00	1358	0.4
Sb	Swamp	5W	Freq		10,178	2.7
Wa	Waverly soils, local alluvium phases	3W	Occas	0.50-1.00	95	<0.1
	Total				237,139	63.0%

Panola County:

Aa	Alligator clay, 0 to 1/2 percent slopes	3W	Rare	0.50-2.00	7470	1.7
Ab	Alligator clay, 1/2 to 2 percent slopes	3W	Rare	0.50-2.00	1145	0.3
Ac	Alligator silt loam, overwash, 1/2 to 2 percent slopes	3W	Rare	0.50-2.00	530	0.1
Ad	Alligator silty clay loam, 0 to 1/2 percent slopes	3W	Rare	0.50-2.00	7935	1.8
Ae	Alligator silty clay loam, 1/2 to 2 percent slopes	3W	Rare	0.50-2.00	2365	0.5
Do	Dowling silty clay and clay (Alligator)	4W	Occas	0.50-2.00	2020	0.5
Fw	Falaya and Waverly silt loams	4W	Freq	1.00-2.00	4670	1.1
Wa	Waverly silt loam	5W	Freq	0.50-1.00	5153	1.2
	Total				31,288	7.1%

Quitman County:

	Swamps	5W	Freq		5120	1.9
Aa	Alligator clay, level phase	3W	Rare	0.50-2.00	16,252	6.2
Ab	Alligator clay, gently sloping phase	3E	Rare	0.50-2.00	1625	0.6
Ac	Alligator silty clay, nearly level phase	3W	Rare	0.50-2.00	21,940	8.3
Ad	Alligator silty clay, gently sloping phase	3E	Rare	0.50-2.00	813	0.3
Ae	Alligator and Dowling clays (Sharkey)	5W	Freq	0.50-2.00	23,378	8.9
Ag	Alligator and Sharkey clays, nearly level phases	3W	Rare	0.50-2.00	14,632	5.5
Ah	Alligator and Sharkey clays, gently sloping phases	3E	Rare	0.50-2.00	1620	0.6
Be	Brittain silt loam, nearly level phase (Amagon)	3W	Rare	1.00-2.00	4575	1.7
Bh	Brittain silty clay loam, nearly level phase (Amagon)	3W	Rare	1.00-2.00	5630	2.1
Bm	Brittain soils-waverly soils, local alluvium phases (Amagon, Rosebloom)	3W	Rare	1.00-2.00	7604	2.9
Da	Dowling clay and silty clay (Sharkey)	4W	Occas	0.00-2.00	36,860	14.0
Fe	Forestdale silty clay loam, nearly level phase	3W	Rare	0.50-2.00	25,743	9.8
Sc	Sharkey silt loam, nearly level overwash phase	3E	Rare	0.00-2.00	190	0.1
Sd	Sharkey silty clay, nearly level phase	3E	Rare	0.00-2.00	13,720	5.2
Se	Sharkey silty clay, gently sloping phase	3E	Rare	0.00-2.00	430	0.2
Sg	Souva silt loam, nearly level phase (Sharkey)	3E	Rare	0.00-2.00	768	0.3
Sh	Souva silt loam, gently sloping phase (Sharkey)	3E	Rare	0.00-2.00	192	0.1
Ta	Tunica silty clay, nearly level phase	3W	Rare	1.50-3.00	2957	1.1
Wa	Waverly soils, depressional phases (Rosebloom)	3W	Occas	0.00-1.00	2160	0.8
	Total				186,209	70.6%

Sharkey County:

Aa	Alligator clay, 0 to 1/2 percent slopes	3W	Rare	0.50-2.00	6325	2.3
Ab	Alligator clay, 1/2 to 2 percent slopes	3W	Rare	0.50-2.00	25,100	9.0
Ac	Alligator clay, overflow, 0 to 2 percent slopes	5W	Freq	0.50-2.00	560	0.2
Ae	Alligator silty clay loam, 0 to 2 percent slopes	3W	Rare	0.50-2.00	1395	0.5
Da	Dowling Clay (Sharkey)	4W	Occas	0.00-2.00	11,765	4.2
Db	Dowling Soils, (Sharkey)	4W	Occas	0.00-2.00	4700	1.7
Fd	Forestdale silty clay loam, 0 to 2 percent slopes	3W	Rare	0.50-2.00	9800	3.5
Sa	Sharkey clay, 0 to 1/2 percent slopes	3W	Rare	0.00-2.00	20,385	7.3
Sb	Sharkey clay, 1/2 to 2 percent slopes	3E	Rare	0.00-2.00	38,205	13.7
Sd	Sharkey clay, overflow, 0 to 2 percent slopes	5W	Freq	0.00-2.00	1410	0.5
Se	Sharkey silt loam, overwash, 0 to 2 percent slopes	3E	Rare	0.00-2.00	300	0.1
Sk	Sharkey silty clay loam, 0 to 2 percent slopes	3E	Rare	0.00-2.00	770	0.3
Sr	Sharkey, Alligator, and Dowling soils (Sharkey, Alligator, Sharkey)	5W	Freq	0.00-2.00	95,000	34.0
Ta	Tunica clay, 0 to 2 percent slopes	3W	Rare	1.50-3.00	5415	1.9
	Total				221,130	79.2%

Sunflower County:

Aa	Alligator clay, level phase	3W	Rare	0.50-2.00	20,651	4.7
Ab	Alligator clay, nearly level phase	3W	Rare	0.50-2.00	51,175	11.5
Ac	Alligator clay, gently sloping phase	3E	Rare	0.50-2.00	2351	0.5
Ad	Alligator clay, sloping phase	3E	Rare	0.50-2.00	120	<0.1
Ae	Alligator silty clay, level phase	3W	Rare	0.50-2.00	2216	0.5
Ag	Alligator silty clay, nearly level phase	3W	Rare	0.50-2.00	31,885	7.2
Ah	Alligator silty clay, gently sloping phase	3E	Rare	0.50-2.00	1550	0.3
Ak	Alligator silty clay loam, level phase	3W	Rare	0.50-2.00	210	0.1
Am	Alligator silty clay loam, nearly level phase	3W	Rare	0.50-2.00	3978	0.9
Be	Brittain silt loam, nearly level phase (Amagon)	3W	Rare	1.00-2.00	922	0.2
Db	Dowling clay (Sharkey)	4W	Occas	0.00-2.00	49,117	11.1
Dc	Dowling soils, overwash phases (Sharkey)	4W	Occas	0.00-2.00	40,101	9.0
Fe	Forestdale silty clay, level phase	3W	Rare	0.50-2.00	92	<0.1
Fg	Forestdale silty clay, nearly level phase	3W	Rare	0.50-2.00	8078	1.8
Fk	Forestdale silty clay loam, level phase	3W	Rare	0.50-2.00	630	0.1
Fm	Forestdale silty clay loam, nearly level phase	3W	Rare	0.50-2.00	40,467	9.1
Ia	Iberia clay (Sharkey)	3W	Rare	0.00-2.00	432	0.1
Sa	Sharkey clay, level phase	3W	Rare	0.00-2.00	4487	1.0
Sb	Sharkey clay, nearly level phase	3E	Rare	0.00-2.00	11,517	2.6
Sc	Sharkey clay, gently sloping phase	3E	Rare	0.00-2.00	638	0.1
Sd	Sharkey clay, sloping phase	3E	Rare	0.00-2.00	34	<0.1
Se	Sharkey silty clay loam, level phase	3W	Rare	0.00-2.00	97	<0.1
Sg	Sharkey silty clay loam, nearly level phase	3E	Rare	0.00-2.00	195	<0.1
Sh	Sharkey-Clack soils, nearly level phases (Sharkey, Bruno)	3E	Rare	0.00-2.00	284	0.1
Sh	Sharkey-Clack soils, nearly level phases (Sharkey, Bruno)	3S	Rare	4.00-2.00	*	*
Sk	Sharkey-Clack soils, gently sloping phases (Sharkey, Bruno)	3E	Rare	0.00-2.00	878	0.2
Sk	Sharkey-Clack soils, gently sloping phases (Sharkey, Bruno)	3S	Rare	4.00-6.00	*	*
Sm	Souva soils (Amagon)	3W	Occas	1.00-2.00	320	0.1
Ta	Tunica silty clay, nearly level phase	3W	Rare	1.50-3.00	270	0.1
Wa	Waverly silt loam, local alluvium phase (Rosebloom)	3W	Occas	0.00-1.00	80	<0.1
	Total				272,775	61.5%

Tallahatchie County:

AcA	Alligator clay, 0 to 2 percent slopes	3W	Rare	0.50-2.00	68,375	16.6
Ad	Alligator clay, depressional	4W	Occas	0.50-2.00	38,060	9.2
AsA	Alligator silty clay loam, 0 to 2 percent slopes	3W	Rare	0.50-2.00	6100	1.5
Cb	Calhoun-Bonn complex	3W	None	0.00-2.00	3000	0.7

Fe	Falaya-Waverly association	4W	Freq	1.00-2.00	5720	1.4
Fo	Forestdale silt loam, depressional	4W	Occas	0.50-2.00	700	0.2
Fr	Forestdale silty clay loam, 0 to 3 percent slopes	3W	Rare	0.50-2.00	17,580	4.3
Ro	Rosebloom silt loam	3W	Occas	0.00-1.00	2300	0.6
Sh	Sharkey Clay	3E	Rare	0.00-2.00	1000	0.2
Wv	Waverly silt loam	3W	Occas	0.50-1.00	4190	1.0
	Total				147,025	35.7%

Tate County:

AS	Alligator-Dowling association (Alligator, Alligator)	5W	Freq	0.50-2.00	3251	1.3
Ao	Alligator clay	3W	Rare	0.50-2.00	1289	0.5
Ar	Alligator silty clay loam	3W	Rare	0.50-2.00	781	0.3
Au	Arkabutla silty clay loam	4W	Freq	1.00-1.50	2150	0.9
Dc	Dowling clay (Alligator)	4W	Occas	0.50-2.00	598	0.2
Wv	Waverly silt loam	5W	Freq	0.50-1.00	1042	0.4
	Total				9111	3.7%

Tunica County:

Aa	Alligator clay, level phase	3W	Rare	0.50-2.00	3200	1.1
Ab	Alligator clay, undulating phase	3E	Rare	0.50-2.00	640	0.2
Da	Dowling silt loam, and clay loam (Sharkey)	4W	Occas	0.00-2.00	1280	0.4
Db	Dowling soils (Sharkey)	4W	Occas	0.00-2.00	2560	0.9
Fc	Forestdale silty clay loam-clay, level phases	3W	Rare	0.50-2.00	5280	1.8
Fd	Forestdale silty clay loam-clay undulating phases	3W	Rare	0.50-2.00	4160	1.4
Sb	Sharkey-Alligator clays, level phases	3E	Rare	0.00-2.00	47,434	16.2
Sc	Sharkey and Dowling clays (Sharkey)	4W	Occas	0.00-2.00	45,153	15.4
Sd	Sharkey clay, undulating phase	3E	Rare	0.00-2.00	5120	1.8
Sf	Sharkey silty clay loam, level overwash phase	3E	Rare	0.00-2.00	400	0.1
Sg	Sharkey silty clay loam, undulating overwash phase	3E	Rare	0.00-2.00	300	0.1
Sh	Souva silt loam, gently sloping phase (Sharkey)	4W	Occas	0.00-2.00	1600	0.6
Sk	Souva silt loam, level phase (Sharkey)	4W	Occas	0.00-2.00	9280	3.2
Tc	Tunica clay and silty clay, level phases	3W	Rare	1.50-3.00	8960	3.1
Td	Tunica clay and silty clay, undulating phases	3E	Rare	1.50-3.00	7520	2.6
Te	Tunica, Commerce, and Sharkey soils	5W	Freq	1.50-3.00	1800	0.6
	Total				144,687	49.4%

Warren County:

Ar	Alligator clay	3W	Rare	0.50-2.00	2410	0.7
CrC	Commerce, Robinsonville, and Crevasse soils (Commerce, Robinsonville, Bruno)	5W	Freq	1.50-4.00	43,080	11.9
Do	Dowling clay (Sharkey)	5W	Freq	0.00-2.00	7345	2.0
Sc	Sharkey clay	3E	Rare	0.00-2.00	12,810	3.5
Sw	Swamp	5W	Freq		880	0.2
Tu	Tunica silty clay	3W	Rare	1.50-3.00	4610	1.3
Ur	Sharkey, Tunica, and Dowling clays (Sharkey, Tunica, Sharkey)	5W	Freq	0.00-2.00	41,075	11 3
Wf	Waverly and Falaya silt loams (Rosebloom and Collins)	5W	Freq	0.00-1.00	9150	2.5
	Total				121,360	33.5%

Washington County:

Aa	Alligator clay, level phase	3W	Rare	0.50-2.00	7000	1.5
Ab	Alligator clay, nearly level phase	3W	Rare	0.50-2.00	29,270	6.3
Ac	Alligator clay, gently sloping phase	3E	Rare	0.50-2.00	470	0.1
Ad	Alligator silty clay loam, level phase	3W	Rare	0.50-2.00	720	0.1
Ae	Alligator silty clay loam, nearly level phase	3W	Rare	0.50-2.00	4430	0.9
Da	Dowling clay (Sharkey)	4W	Occas	0.00-2.00	51,330	11.0
Db	Dowling soils (Sharkey)	4W	Occas	0.00-2.00	9000	1.9

Fb	Forestdale silty clay, nearly level phase	3W	Rare	0.50-2.00	15,940	3.4
Fd	Forestdale silty clay loam, nearly level phase	3W	Rare	0.50-2.00	19,990	4.3
Sa	Sharkey clay, level phase	3W	Rare	0.00-2.00	36,630	7.9
Sb	Sharkey clay, nearly level phase	3E	Rare	0.00-2.00	100,460	21.6
Sc	Sharkey clay, gently sloping phase	3E	Rare	0.00-2.00	2010	0.4
Sd	Sharkey silty clay loam, nearly level phase	3E	Rare	0.00-2.00	4060	0.9
Se	Sharkey very fine sandy loam, nearly level overwash phase	3E	Rare	0.00-2.00	2000	0.4
So	Souva silt loam (Commerce)	3W	Occas	1.50-4.00	940	0.2
Sw	Swamp	5W	Freq		5550	1.2
Ta	Tunica clay, nearly level phase	3W	Rare	1.50-3.00	10,360	2.2
	Total				300,160	64.5%

Yalobusha County:

Au	Arkabutla silt loam, frequently flooded	4W	Freq	1.00-1.50	4972	1.6
Bu	Bruno sandy loam, frequently flooded	5W	Freq	4.00-6.00	130	<0.1
Cd	Cascilla silt loam, frequently flooded	4W	Freq	6.00-6.00	345	0.1
Co	Collins silt loam, frequently flooded	4W	Freq	2.00-5.00	3800	1.2
Gb	Gillsburg silt loam, frequently flooded	4W	Freq	1.00-1.50	500	0.2
Ok	Oaklimeter silt loam, frequently flooded	4W	Freq	1.50-2.50	3658	1.2
	Total				13,405	4.2%

Yazoo County:

Bm	Bruno-Morganfield complex	5W	Freq	4.00-6.00	875	0.1
FC	Falaya-Vicksburg-Leverett Association	4W	Freq	1.00-2.00	24,275	4.0
Fr	Forestdale silty clay loam	3W	Rare	0.50-2.00	21,435	3.6
Sa	Sharkey silty clay loam	3E	Rare	0.00-2.00	7925	1.3
Sc	Sharkey clay	3E	Rare	0.00-2.00	60,790	10.1
Sd	Sharkey clay, depressional	W	Occas	0.00-2.00	11,500	1.9
Sf	Sharkey and Forestdale soils	5W	Freq	0.00-2.00	33,100	5.5
	Total				159,900	26.6%

Source: USDA, Soil Conservation Service, State Conservationist, Jackson, MS. Figures were compiled in 1989, but based on soil surveys done in each county during the 1950's, 1960's and 1970's.

* Denotes soils complexes that occur in such an intricate pattern that it was not practical to map them separately. Acreage and proportional extent figures for these soils are listed as a lump sum at the first listing of the complex.

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APPENDIX A: GLOSSARY

Capability class - a grouping of soils that generally shows how suitable they are for most kinds of farming. It is a practical grouping based on the limitations of the soil (risk of erosion, water in or on the soil, droughty or stony, or climate), the risk of damage when they are used, and the way they respond to treatment. In the capability system, soils are grouped at three levels: the capability class, the subclass, and the unit. Capability classes, the broadest groups, are designated by Roman numerals I through VII. The numerals indicate progressively greater limitations and narrower choices for practical uses.

Capability subclass - soil groups within one class; they are designated by adding a small letter, *e*, *w*, *s*, or *c*, to the class numeral, for example, IIe. The letter *e* shows that the main limitation is risk of erosion unless close-growing plant cover is maintained; *w* shows that water in or on the soil interferes with plant growth or cultivation (in some soils the wetness can be partly corrected by artificial drainage); *s* shows that the soil is limited mainly because it is shallow, droughty, or stony; and *c*, used in only some parts of the United States, shows that the chief limitation is climate that is too cold or too dry.

Channel scars - lengthy segments of a river abandoned when its associated stream diverted to a new course across the floodplain.

Drainage class - refers to the frequency and duration of periods of saturation or partial saturation during soil formation, as opposed to the altered drainage which is commonly the result of artificial drainage or irrigation but may be caused by the sudden deepening of channels or the blocking of drainage outlets. The seven classes of recognized natural soil drainage are: excessively drained, somewhat excessively drained, well drained moderately well drained, somewhat poorly drained, poorly drained and very poorly drained.

Facultative species (FAC) - plants that are equally likely to occur in wetlands or nonwetlands (estimated probability 34-66%).

Facultative upland species (FACU) - plants that usually occur in nonwetlands (estimated probability 67-99%), but occasionally are found in wetlands (estimated probability 1-33%).

Facultative wetland species (FACW) - plants that usually occur in wetlands (estimated probability 67-99%), but occasionally are found in nonwetlands (estimated probability 1-33%).

Growing season - the portion of the year when soil temperatures are above biological zero (41°F) as defined by "Soil Taxonomy" (USDA Soil Survey Staff 1975); the following growing season months are assumed for each of the soil temperature regimes: (1) thermic (February-October); (2) mesic (March-October); (3) frigid (May-September; (4) cryic (June-August); (5) pergelic (July-August); (6) isohyperthermic (January-December); hyperthermic (February-December); (8) isothermic (January-December); and (9) isomesic (January-December).

Meander scar - a collective term that reflects several different methods of deposition effected by the meandering of rivers and streams.

Natural levees - broad, low ridges which flank both sides of streams that periodically overflow their banks. Since the coarsest textured material and greatest quantity of material are deposited closest to the stream channel, the natural levee is the highest and deepest in this area and gradually gets thinner as one moves away from the channel.

Obligate species (OBL) - plants that nearly always are found in wetlands; their frequency of occurrence in wetlands is 99% or more.

Oxbow remnants - abandoned channels composed of partially filled segments of meandering streams which formed when the stream shortened its course. They are characterized by open water or "oxbow lakes."

Point bar - deposits consisting of sediments laid on the inside of a stream or river bend as a result of meandering. Point bar deposits characteristically form ridge and swale topography, the configuration of which conforms to the curvature of the migrating channel and indicates the direction and extent of meandering.

Upland - any area that does not qualify as a wetland because the associated hydrologic regime is not sufficiently wet to elicit development of vegetation, soils, and/or hydrologic characteristics associated with wetlands. Such areas occurring in floodplains are more appropriately termed nonwetlands.

APPENDIX B: LIST OF PARTICIPANTS

Team 1 Washington and Bolivar Counties

David Lofton	Environmental Specialist	CE, Vicksburg
William Kirchner	Life Scientist	EPA, Region 6
Robert Wimbish	Soil Scientist	SCS

Team 2 Sharkey and Quitman Counties

Larry Marcy	Environmental Specialist	CE, Vicksburg
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Team 3 Humphreys and Coahoma Counties

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Team 4 Leflore and Tallahatchie Counties

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James Nipper	Wildlife Biologist
Russell Watson	Wildlife Biologist
Robert Barkley	Wildlife Biologist

APPENDIX C: COUNTY SOILS INFORMATION

USDA, Soil Conservation Service
Soil Series Map Unit Information

Bolivar County, Mississippi

Map Symbol	Soil Series Map Unit Name	Capability Class	Annual Flood	Range of Depth to Seasonal High Water Table (feet)	Acres	Percent
	Other areas, not mapped in detail				14,720	2.5
Aa	Alligator clay, level phase	3W	Rare	0.50 - 2.00	810	0.1
Ab	Alligator clay, nearly level phase	3W	Rare	0.50 - 2.00	28,593	4.9
Ac	Alligator clay, gently sloping phase	3E	Rare	0.50 - 2.00	1042	0.2
Ad	Alligator silty clay, level phase	3W	Rare	0.50 - 2.00	227	<0.1
Ae	Alligator silty clay, nearly level phase	3W	Rare	0.50 - 2.00	7104	1.2
Ag	Alligator silty clay, gently sloping phase	3E	Rare	0.50 - 2.00	337	0.1
Ah	Alligator silty clay loam, nearly level phase	3W	Rare	0.50 - 2.00	1311	0.2
Ak	Alluvial soils		Freq		56,033	9.6
Ba	Beulah very fine sandy loam, nearly level phase	2S	Rare	6.00 - 6.00	1527	0.3
Bb	Bosket very fine sandy loam, nearly level phase (Dubbs)	1	None	6.00 - 6.00	4456	0.8
Bc	Bosket very fine sandy loam, gently sloping phase (Dubbs)	3E	None	6.00 - 6.00	124	<0.1
Bd	Brittain silty loam, nearly level phase (Forestdale)	3W	Rare	0.50 - 2.00	14,840	2.5
Ca	Clack loamy sand, nearly level phase (Crevasse)	4S	Rare	3.50 - 6.00	788	0.1
Cb	Clack sandy loam, nearly level phase (Crevasse)	4S	Rare	3.50 - 6.00	394	0.1
Cc	Commerce silt loam	2E	Rare	1.50 - 4.00	8290	1.4
Cd	Commerce silty clay	2E	Rare	1.50 - 4.00	1451	0.3
Ce	Commerce silty clay loam	2E	Rare	1.50 - 4.00	5126	0.9
Cg	Commerce-Robinsonville-Crevasse soils	2E	Rare	1.50 - 4.00	1053	0.2
Cg	Commerce-Robinsonville-Crevasse soils	1	Rare	4.00 - 6.00	*	*
Cg	Commerce-Robinsonville-Crevasse soils	4S	Rare	3.50 - 6.00	*	*
Ch	Crevasse loamy sand	4S	Rare	3.50 - 6.00	3224	0.6
Ck	Crevasse loamy sand, shallow variant	4S	Rare	3.50 - 6.00	893	0.1
Da	Dexter silt loam, nearly level phase (Dubbs)	1	None	6.00 - 6.00	1307	0.2
Db	Dexter silt loam, gently sloping phase (Dubbs)	3E	None	6.00 - 6.00	413	0.1
Dc	Dowling clay (Sharkey)	5W	Freq	0.00 - 2.00	80,563	13.7
Dd	Dowling soils, overwash phases (Sharkey)	5W	Freq	0.00 - 2.00	23,698	4.0
De	Dubbs very fine sandy loam, nearly level phase	1	None	6.00 - 6.00	5087	0.9
Dg	Dubbs very fine sandy loam, gently sloping phase	3E	None	6.00 - 6.00	492	0.1
Dh	Dundee silt loam, nearly level phase	2W	Rare	1.50 - 3.50	11,487	2.0
Dk	Dundee silt loam, gently sloping phase	3E	Rare	1.50 - 3.50	2337	0.4
Dm	Dundee silty clay, nearly level phase	2W	Rare	1.50 - 3.50	7854	1.3
Dn	Dundee silty clay loam, nearly level phase	2W	Rare	1.50 - 3.50	29,769	5.1
Do	Dundee silty clay loam, gently sloping phase	3E	Rare	1.50 - 3.50	1527	0.3
Dp	Dundee silty clay loam, sloping phase	3E	Rare	1.50 - 3.50	55	<0.1
Dr	Dundee very fine sandy loam, nearly level phase	2W	Rare	1.50 - 3.50	11,487	2.0
Ds	Dundee very fine sandy loam, gently sloping phase	3E	Rare	1.50 - 3.50	1189	0.2
Dt	Dundee-Clack soils, nearly level phase (Dundee, Crevasse)	2W	Rare	1.50 - 3.50	2251	0.4
Dt	Dundee-Clack soils, nearly level phase (Dundee, Crevasse)	4S	Rare	3.50 - 6.00	*	*
Du	Dundee-Clack soils, gently sloping phase (Dundee, Crevasse)	3E	Rare	1.50 - 3.50	1665	0.3
Du	Dundee-Clack soils, gently sloping phase (Dundee, Crevasse)	4S	Rare	3.50 - 6.00	*	*
Fa	Forestdale silty loam, nearly level phase	3W	Rare	0.50 - 2.00	21,052	3.6
Fb	Forestdale silt loam, gently sloping phase	3W	Rare	0.50 - 2.00	90	<0.1
Fc	Forestdale silty clay, nearly level phase	3W	Rare	0.50 - 2.00	3198	0.5
Fd	Forestdale silty clay, gently sloping phase	3W	Rare	0.50 - 2.00	445	0.1
Fe	Forestdale silty clay loam, nearly level phase	3W	Rare	0.50 - 2.00	27,136	4.6
Fg	Forestdale silty clay loam, gently sloping phase	3W	Rare	0.50 - 2.00	555	0.1

Fh	Forestdale soils, nearly level phase	3W	Rare	0.50 - 2.00	1244	0.2
Ma	Mhoon silt loam	2W	Rare	0.00 - 3.00	223	<0.1
Pa	Pearson silt loam, nearly level phase (Dundee)	2W	Rare	1.50 - 3.50	3985	0.7
Pb	Pearson silt loam, gently sloping phase (Dundee)	3E	Rare	1.50 - 3.50	1121	0.2
Ra	Robinsonville fine sandy loam	1	Rare	4.00 - 6.00	1194	0.2
Sa	Sharkey clay, level phase	3W	Rare	0.00 - 2.00	10,619	1.8
Sb	Sharkey clay, nearly level phase	3E	Rare	0.00 - 2.00	106,490	18.1
Sc	Sharkey clay gently sloping phase	3E	Rare	0.00 - 2.00	604	0.1
Sd	Sharkey silty clay, level phase	3W	Rare	0.00 - 2.00	484	0.1
Se	Sharkey silty clay, nearly level phase	3E	Rare	0.00 - 2.00	47,893	8.2
Sg	Sharkey silty clay, gently sloping phase	3E	Rare	0.00 - 2.00	490	0.1
Sh	Sharkey silty clay loam, nearly level overwash phase	3E	Rare	0.00 - 2.00	1545	0.3
Sk	Sharkey very fine sandy loam, nearly level, overwash phase	3E	Rare	0.00 - 2.00	824	0.1
Sm	Sharkey-Clack soils, nearly level phases (Sharkey, Crevasse)	3E	Rare	0.00 - 2.00	3242	0.6
Sm	Sharkey-Clack soils, nearly level phases (Sharkey, Crevasse)	4S	Rare	3.50 - 6.00	*	*
Sn	Sharkey-Clack soils, gently sloping phase (Sharkey, Crevasse)	3E	Rare	0.00 - 2.00	847	0.1
Sn	Sharkey-Clack soils, gently sloping phase (Sharkey, Crevasse)	4S	Rare	3.50 - 6.00	*	*
So	Souva Soils (Sharkey)	5W	Freq	0.00 - 2.00	1163	0.2
Ta	Tunica silty clay, nearly level phase	3W	Rare	1.50 - 3.00	16,086	2.7
Tb	Tunica silty clay, gently sloping phase	3E	Rare	1.50 - 3.00	1127	0.2
Wa	Waverly silt loam, local alluvium phase (Sharkey)	5W	Freq	0.00 - 2.00	1699	0.3
	Total				586,880	100.0

Source: USDA, Soil Conservation Service, State Conservationist, Jackson, MS. Figures were compiled in 1989, but based on the Bolivar County Soil Survey, 1958, USDA Soil Conservation Service.

* Denotes soils complexes that occur in such an intricate pattern that it was not practical to map them separately. Acreage and proportional extent figures for these soils are listed as a lump sum at the first listing of the complex.

USDA, Soil Conservation Service
Soil Series Map Unit Information

Carroll County, Mississippi

Map Symbol	Soil Series Map Unit Name	Capability Class	Annual Flood	Range of Depth to Seasonal High Water Table (feet)	Acres	Percent
13	Bruno sandy loam, occasionally flooded	3S	Occas	4.00 - 6.00	9780	2.4
17	Chenneby-Arkabutla Association, frequently flooded	4W	Freq	1.00 - 2.50	5300	1.3
17	Chenneby-Arkabutla Association, frequently flooded	4W	Freq	1.00 - 1.50	*	*
19	Bruno-Tutwiler complex	3S	Rare	4.00 - 6.00	2410	0.6
19	Bruno-Tutwiler complex	2E	None	6.00 - 6.00	*	*
20	Alligator silty clay	3W	Rare	0.50 - 2.00	770	0.2
21	Adler silt loam, occasionally flooded	2W	Occas	2.00 - 3.00	8560	2.1
22	Arkabutla silt loam, frequently flooded	4W	Freq	1.00 - 1.50	1960	0.5
23	Chenneby silt loam, frequently flooded	4W	Freq	1.00 - 2.50	2150	0.5
24	Forestdale silt loam	3W	Rare	0.50 - 2.00	1520	0.4
25	Morganfield silt loam, occasionally flooded	2W	Occas	3.00 - 4.00	2080	0.5
26	Oaklimeter silt loam, occasionally flooded	2W	Occas	1.50 - 2.50	21,980	5.4
27	Sharkey clay, frequently flooded	5W	Freq	0.00 - 2.00	2340	0.6
28	Ariel silt loam, occasionally flooded	2W	Occas	2.50 - 4.00	6770	1.7
43	Falaya silt loam, occasionally flooded	2W	Occas	1.00 - 2.00	7950	1.9
47	Gullied land-Loring complex	7E	None	6.00 - 6.00	24,200	5.9
47	Gullied land-Loring complex	7E	None	2.00 - 3.00	*	*
48	Gullied land-Smithdale complex	7E	None	6.00 - 6.00	5850	1.5
48	Gullied land-Smithdale complex	6E	None	6.00 - 6.00	*	*
50	Udorthents, gravelly		None		3240	0.8
72	Crevasse sand, occasionally flooded	4S	Occas	3.50 - 6.00	1920	0.5
80	Bonn silt loam, occasionally flooded	4S	Occas	0.00 - 2.00	1890	0.5
10E2	Smithdale sandy loam, 12 to 30 percent slopes, eroded	7E	None	6.00 - 6.00	15,050	3.7
14E	Maben-Memphis complex, 8 to 20 percent slopes	6E	None	6.00 - 6.00	2000	0.5
14E	Maben-Memphis complex, 8 to 20 percent slopes	6E	None	6.00 - 6.00	*	*
1A	Calloway silt loam, 0 to 1 percent slopes	2W	None	1.00 - 2.00	2560	0.6
210	Adler silt loam	1	Rare	2.00 - 3.00	10,220	2.5
250	Morganfield silt loam	1	Rare	3.00 - 4.00	1190	0.3
2A	Dubbs silt loam, 0 to 2 percent slopes	1	None	6.00 - 6.00	2710	0.7
300	Sharkey clay, ponded	5W	Freq	0.00 - 2.00	6000	1.5
34E	Loring-Memphis Association, rolling		None	2.00 - 3.00	10,230	2.5
34E	Loring-Memphis Association, rolling	6E	None	6.00 - 6.00	*	*
3A	Dundee silt loam, 0 to 2 percent slopes	2W	None	1.50 - 3.50	2790	0.7
3C3	Dulac silt loam, 5 to 8 percent slopes, severely eroded4E	None		1.00 - 2.00	760	0.2
3D3	Dulac silt loam, 8 to 12 percent slopes, severely eroded	4E	None	1.00 - 2.00	1830	0.5
4A	Grenada silt loam, 0 to 1 percent slopes	2W	None	1.50 - 2.50	1720	0.4
4B	Grenada silt loam, 1 to 3 percent slopes	2E	None	1.50 - 2.50	3750	0.9
5B2	Loring silt loam, 2 to 5 percent slopes, eroded	2E	None	2.00 - 3.00	5960	1.5
5C2	Loring silt loam, 5 to 8 percent slopes, eroded	3E	None	2.00 - 3.00	12,100	3.0
5C3	Loring silt loam, 5 to 8 percent slopes, severely eroded	4E	None	2.00 - 3.00	8810	2.2
5D3	Loring silt loam, 8 to 12 percent slopes, severely eroded	6E	None	2.00 - 3.00	9040	2.2
60F1	Natchez-Saffell Association, hilly	7E	None	6.00 - 6.00	3410	0.8
60F1	Natchez-Saffell Association, hilly	7E	None	6.00 - 6.00	*	*
6A	Memphis silt loam, 0 to 2 percent slopes	1	None	6.00 - 6.00	3010	0.7
6B2	Memphis silt loam, 2 to 5 percent slopes, eroded	2E	None	6.00 - 6.00	2720	0.7
6C2	Memphis silt loam, 5 to 8 percent slopes, eroded	3E	None	6.00 - 6.00	5290	1.3
6C3	Memphis silt loam, 5 to 8 percent slopes, severely eroded	4E	None	6.00 - 6.00	5270	1.3
6D3	Memphis silt loam, 8 to 12 percent slopes, severely eroded	6E	None	6.00 - 6.00	7610	1.9
6E3	Memphis silt loam, 12 to 40 percent slopes, severely eroded	7E	None	6.00 - 6.00	26,050	6.4

6F2	Memphis silt loam, 15 to 40 percent slopes, eroded	7E	None	6.00 - 6.00	5080	1.2
7F	Memphis-Natchez Association, hilly	7E	None	6.00 - 6.00	27,900	6.8
7F	Memphis-Natchez Association, hilly	7E	None	6.00 - 6.00	*	*
8C3	Providence silt loam, 5 to 8 percent slopes, severely eroded	4E	None	1.50 - 3.00	8310	2.0
8D3	Providence silt loam, 8 to 12 percent slopes, severely eroded	6E	None	1.50 - 3.00	18,450	4.5
9F	Smithdale-Providence-Lexington Association, hilly	7E	None	6.00 - 6.00	81,900	20.1
9F	Smithdale-Providence-Lexington Association, hilly		None	1.50 - 3.00	*	*
9F	Smithdale-Providence-Lexington Association, hilly	6E	None	6.00 - 6.00	*	*
W	Water (less than 40 acres)				2630	0.6
W	Water (more than 40 acres)				3300	0.8
	Total				408,320	100.0

Source: USDA, Soil Conservation Service, State Conservationist, Jackson, MS. Figures were compiled in 1989, but based on the Carroll County Soil Survey, 1990, USDA Soil Conservation Service.

* Denotes soils complexes that occur in such an intricate pattern that it was not practical to map them separately. Acreage and proportional extent figures for these soils are listed as a lump sum at the first listing of the complex.

USDA, Soil Conservation Service
Soil Series Map Unit Information

Coahoma County, Mississippi

Map Symbol	Soil Series Map Unit Name	Capability Class	Annual Flood	Range of Depth to Seasonal High Water Table (feet)	Acres	Percent
	Swamps, Lakes, Towns, and other areas not covered by soil survey				21,684	5.9
Aa	Alligator clay, level phase	3W	Rare	0.50 - 2.00	7070	1.9
Ab	Alligator clay, nearly level phase	3W	Rare	0.50 - 2.00	30,432	8.3
Ac	Alligator clay, gently sloping phase	3E	Rare	0.50 - 2.00	362	0.1
Ad	Alligator silty clay, level phase	3W	Rare	0.50 - 2.00	379	0.1
Ae	Alligator silty clay, nearly level phase	3W	Rare	0.50 - 2.00	2163	0.6
Ag	Alluvial soils		Freq		48,213	13.2
Ba	Beulah silty clay loam, nearly level, overwash phase	2S	Rare	6.00 - 6.00	244	0.1
Bb	Beulah very fine sandy loam, nearly level phase	2S	Rare	6.00 - 6.00	912	0.3
Bc	Beulah very fine sandy loam, gently sloping phase	2S	Rare	6.00 - 6.00	272	0.1
Bd	Bosket very fine sandy loam, nearly level phase (Dubbs)	1	None	6.00 - 6.00	9395	2.6
Be	Bosket very fine sandy loam, gently sloping phase (Dubbs)	3E	None	6.00 - 6.00	1138	0.3
Ca	Clack-Bosket soils, nearly level phases (Bruno, Dubbs)	3S	Rare	4.00 - 6.00	410	0.1
Cb	Commerce silt loam, nearly level phase	2E	Rare	1.50 - 4.00	7774	2.1
Cc	Commerce silt loam, gently sloping phase	2E	Rare	1.50 - 4.00	211	0.1
Cd	Commerce silty clay, level phase	2W	Rare	1.50 - 4.00	274	0.1
Ce	Commerce silty clay, nearly level phase	2E	Rare	1.50 - 4.00	2473	0.7
Cg	Commerce silty clay loam, nearly level phase	2E	Rare	1.50 - 4.00	4789	1.3
Ch	Commerce silty clay loam, gently sloping phase	2E	Rare	1.50 - 4.00	355	0.1
Ck	Crevasse soils, nearly level phases (Bruno)	5W	Freq	4.00 - 6.00	525	0.1
Da	Dowling clay (Sharkey)	4W	Occas	0.00 - 2.00	34,689	9.5
Db	Dowling soils (Sharkey)	4W	Occas	0.00 - 2.00	18,475	5.1
Dc	Dubbs silt loam, nearly level phase	1	None	6.00 - 6.00	820	0.2
Dd	Dubbs very fine sandy loam, nearly level phase	1	None	6.00 - 6.00	19,769	5.4
De	Dubbs very fine sandy loam, gently sloping phase	3E	None	6.00 - 6.00	1277	0.3
Dg	Dundee silty loam, nearly level phase	2W	Rare	1.50 - 3.50	17,808	4.9
Dh	Dundee silt loam, gently sloping phase	3E	Rare	1.50 - 3.50	726	0.2
Dk	Dundee silty clay loam, level phase	2W	Rare	1.50 - 3.50	204	0.1
Dm	Dundee silty clay loam, nearly level phase	2W	Rare	1.50 - 3.50	19,345	5.3
Dn	Dundee silty clay loam, gently sloping phase	3E	Rare	1.50 - 3.50	1443	0.4
Do	Dundee very fine sandy loam, nearly level phase	2W	Rare	1.50 - 3.50	21,839	6.0
Dp	Dundee very fine sandy loam, gently sloping phase	3E	Rare	1.50 - 3.50	1127	0.3
Dr	Dundee-Clack soils, nearly level phases (Dundee, Bruno)	2W	Rare	1.50 - 3.50	975	0.3
Ds	Dundee-Clack soils, gently sloping phases (Dundee, Bruno)	3E	Rare	1.50 - 3.50	1085	0.3
Dt	Dundee-Clack soils, sloping phases (Dundee, Bruno)	3E	Rare	1.50 - 3.50	817	0.2
Fa	Forestdale silt loam, level phase	3W	Rare	0.50 - 2.00	318	0.1
Fb	Forestdale silt loam, nearly level phase	3W	Rare	0.50 - 2.00	4099	1.1
Fc	Forestdale silty clay, level phase	3W	Rare	0.50 - 2.00	1349	0.4
Fd	Forestdale silty clay, nearly level phase	3W	Rare	0.50 - 2.00	13,539	3.7
Fe	Forestdale silty clay, gently sloping phase	3W	Rare	0.50 - 2.00	482	0.1
Fg	Forestdale silty clay loam, level phase	3W	Rare	0.50 - 2.00	540	0.1
Fh	Forestdale silty clay loam, nearly level phase	3W	Rare	0.50 - 2.00	17,325	4.8
Fk	Forestdale silty clay loam, gently sloping phase	3W	Rare	0.50 - 2.00	109	<0.1
Ma	Mhoon silty clay, nearly level phase	2W	Rare	0.00 - 3.00	110	<0.1
Ra	Robinsonville very fine sandy loam, nearly level phase	1	Rare	4.00 - 6.00	2301	0.6
Rb	Robinsonville very fine sandy loam, gently sloping phase	2E	Rare	4.00 - 6.00	187	0.1
Rc	Robinsonville-Crevasse soils, nearly level phases (Robinsonville, Bruno)	1	Rare	4.00 - 6.00	1821	0.5

Rd	Robinsonville-Crevasse soils, gently sloping phases (Robinsonville, Bruno)	2E	Rare	4.00 - 6.00	402	0.1
Sa	Sharkey clay, level phase	3W	Rare	0.00 - 2.00	7613	2.1
Sb	Sharkey silty clay, nearly level phase	3E	Rare	0.00 - 2.00	21,658	5.9
Sb	Sharkey clay, nearly level phase	3E	Rare	0.00 - 2.00	1792	0.5
Sb	Sharkey silty clay, nearly level phases	3E	Rare	0.00 - 2.00	*	*
Sb	Sharkey clay, nearly level phase	3E	Rare	0.00 - 2.00	*	*
Sc	Sharkey clay, nearly level phase, shallow over sand	3E	Rare	0.00 - 2.00	120	<0.1
Sd	Sharkey silty clay, gently sloping phase	3E	Rare	0.00 - 2.00	679	0.2
Sd	Sharkey clay, gently sloping phase	3E	Rare	0.00 - 2.00	147	<0.1
Sd	Sharkey silty clay, gently sloping phase	3E	Rare	0.00 - 2.00	*	*
Sd	Sharkey clay, gently sloping phase	3E	Rare	0.00 - 2.00	*	*
Se	Sharkey silt loam, nearly level overwash phase	3E	Rare	0.00 - 2.00	267	0.1
Sg	Sharkey silty clay, level phase	3W	Rare	0.00 - 2.00	196	0.1
Sm	Sharkey-Clack soils, nearly level phase (Sharkey, Bruno)	4W	Occas	0.00 - 2.00	679	0.2
Sm	Sharkey-Clack soils, nearly level phase (Sharkey, Bruno)	3S	Occas	4.00 - 6.00	*	*
Sn	Sharkey-Clack soils, gently sloping phase (Sharkey, Bruno)	4W	Occas	0.00 - 2.00	366	0.1
Sn	Sharkey-Clack soils, gently sloping phases (Sharkey, Bruno)	3S	Occas	4.00 - 6.00	*	*
So	Souva silt loam (Forestdale)	3W	Rare	0.50 - 2.00	1645	0.5
Ta	Tunica silty clay, nearly level phase	3W	Rare	1.50 - 3.00	6387	1.8
Tb	Tunica silty clay, gently sloping phase	3E	Rare	1.50 - 3.00	1195	0.3
	Total				364,800	100.0

Source: USDA, Soil Conservation Service, State Conservationist, Jackson, MS. Figures were compiled in 1989, but based on the Coahoma County Soil Survey, 1959, USDA Soil Conservation Service.

* Denotes soils complexes that occur in such an intricate pattern that it was not practical to map them separately. Acreage and proportional extent figures for these soils are listed as a lump sum at the first listing of the complex.

USDA, Soil Conservation Service
Soil Series Map Unit Information

DeSoto County, Mississippi

Map Symbol	Soil Series Map Unit Name	Capability Class	Annual Flood	Range of Depth to Seasonal High Water Table (feet)	Acres	Percent
Aa	Alligator clay, nearly level phase	3W	Rare	0.50 - 2.00	466	0.2
Ab	Alluvial soils				4565	1.6
Ba	Beulah and Dundee soils, gently sloping phases	2S	Rare	6.00 - 6.00	405	0.1
Ba	Beulah and Dundee soils, gently sloping phases	3E	Rare	1.50 - 3.50	•	•
Bb	Bosket very fine sandy loam, nearly level phases (Dubbs)	1	None	6.00 - 6.00	538	0.2
Bc	Bosket very fine sandy loam, very gently sloping phase (Dubbs)	2E	None	6.00 - 6.00	1140	0.4
Bd	Brandon-Loring silt loams, strongly sloping phases	6E	None	6.00 - 6.00	796	0.3
Bd	Brandon-Loring silt loams, strongly sloping phases		None	2.00 - 3.00	•	•
Ca	Calhoun silt loam, nearly level phase	3W	None	0.00 - 2.00	226	0.1
Cb	Calhoun silt loam, very gently sloping phase	3W	None	0.00 - 2.00	250	0.1
Cc	Calloway silt loam, very gently sloping phase	3E	None	1.00 - 2.00	750	0.3
Cd	Calloway silt loam, eroded, very gently sloping phase	3E	None	1.00 - 2.00	83	<0.1
Ce	Calloway silt loam, severely eroded gently sloping phase	3E	None	1.00 - 2.00	102	<0.1
Cf	Collins loamy sand, overwash phase (Nugent)	3S	Occas	3.50 - 6.00	939	0.3
Cg	Collins silt loam (Adler)	2W	Occas	2.00 - 3.00	32,710	11.5
Ch	Collins silty clay loam (Adler)	2W	Occas	2.00 - 3.00	1369	0.5
Ck	Collins silty clay loam, shallow phase (Adler)	2W	Occas	2.00 - 3.00	509	0.2
Cl	Collins and Falaya silt loams, local alluvium phases	2W	Occas	2.00 - 5.00	26,422	9.3
Cl	Collins and Falaya silt loams, local alluvium phases	2W	Occas	1.00 - 2.00	•	•
Cm	Commerce silt loam, very gently sloping phase (Bruin)	2E	Rare	6.00 - 6.00	383	0.1
Cn	Commerce silty clay loam, nearly level phase (Bruin)	2E	Rare	6.00 - 6.00	1279	0.5
Co	Commerce very fine sandy loam, nearly level phase (Bruin)	2E	Rare	6.00 - 6.00	1398	0.5
Da	Dowling clay (Sharkey)	4W	Occas	0.00 - 2.00	1930	0.7
Db	Dowling soils (Sharkey)	4W	Occas	0.00 - 2.00	2171	0.8
Dc	Dubbs silt loam, very gently sloping phase	2E	None	6.00 - 6.00	623	0.2
Dc	Dundee silt loam, very gently sloping phase	2E	None	6.00 - 6.00	291	0.1
Dc	Dundee silty loam, very gently sloping phase	2E	Rare	1.50 - 3.50	•	•
Dd	Dubbs very fine sandy loam, very gently sloping phase	2E	None	6.00 - 6.00	1681	0.6
De	Dubbs very fine sandy loam, gently sloping phase	3E	None	6.00 - 6.00	211	0.1
Df	Dundee silt loam, nearly level phase	2W	Rare	1.50 - 3.50	968	0.3
Dh	Dundee silty clay loam, nearly level phase	2W	Rare	1.50 - 3.50	1423	0.5
Dk	Dundee silty clay loam, very gently sloping phase	2E	Rare	1.50 - 3.50	1186	0.4
Dl	Dundee silty clay loam, gently sloping phase	3E	Rare	1.50 - 3.50	148	0.1
Dm	Dundee very fine sandy loam, nearly level phase	2W	Rare	1.50 - 3.50	3917	1.4
Dn	Dundee very fine sandy loam, very gently sloping phase	2E	Rare	1.50 - 3.50	491	0.2
Fa	Falaya silt loam (Arkabutla)	2W	Occas	1.00 - 1.50	9648	3.4
Fb	Falaya silty clay loam (Arkabutla)	2W	Occas	1.00 - 1.50	8433	3.0
Fc	Falaya and Waverly silt loams, local alluvium phases (Arkabutla and Rosebloom)	4W	Freq	1.00 - 1.50	358	0.1
Fc	Falaya and Waverly silt loams, local alluvium phases (Arkabutla and Rosebloom)	5W	Freq	0.00 - 1.00	•	•
Fd	Forestdale silty clay loam, nearly level phase	3W	Rare	0.50 - 2.00	1476	0.5
Ga	Grenada silt loam, eroded, very gently sloping phase	2E	None	1.50 - 2.50	4225	1.5
Gb	Grenada silt loam, severely eroded very gently sloping phase	3E	None	1.50 - 2.50	1916	0.7
Gd	Grenada silt loam, severely eroded, gently sloping phase	4E	None	1.50 - 2.50	10,991	3.9
Ge	Grenada silt loam, sloping phase (Loring)	4E	None	2.00 - 3.00	636	0.2

Gf	Grenada silt loam, severely eroded sloping phase (Loring)	6E	None	2.00 - 3.00	3367	1.2
Gg	Guin gravelly sandy loam, moderately steep phase (Saffell)	7E	None	6.00 - 6.00	309	0.1
Gh	Gullied land, Grenada soil material	7E	None	6.00 - 6.00	7670	2.7
Gk	Gullied land, Loring soil material	7E	None	6.00 - 6.00	44,744	15.8
Ha	Henry silt loam	3W	None	0.50 - 1.50	16	0.0
Ka	Kershaw sand, moderately steep phase (Lakeland)	7S	None	6.00 - 6.00	25	0.0
La	Lexington-Loring-Providence silt loams, eroded moderately steep phases	6E	None	6.00 - 6.00	475	0.2
La	Lexington-Loring-Providence silt loams, eroded moderately steep phases		None	2.00 - 3.00	*	*
La	Lexington-Loring-Providence silt loams, eroded moderately steep phases		None	1.50 - 3.00	*	*
Lb	Lintonia silt loam, eroded very gently sloping phase (Memphis)	2E	None	6.00 - 6.00	441	0.2
Lc	Loring silt loam, eroded very gently sloping phase	2E	None	2.00 - 3.00	10,065	3.5
Ld	Loring silt loam, gently sloping phase	3E	None	2.00 - 3.00	1111	0.4
Le	Loring silt loam, sloping phase	4E	None	2.00 - 3.00	1838	0.7
Lf	Loring silt loam, strongly sloping phase		None	2.00 - 3.00	1427	0.5
Lg	Loring silt loam, eroded strongly sloping phase		None	2.00 - 3.00	1401	0.5
Lh	Loring silt loam, moderately steep phase		None	2.00 - 3.00	553	0.2
Lk	Loring silty clay loam, severely eroded very gently sloping phase	3E	None	2.00 - 3.00	4207	1.5
Ll	Loring silty clay loam, severely eroded gently sloping phase	4E	None	2.00 - 3.00	14,243	5.0
Lm	Loring silty clay loam, severely eroded sloping phase	6E	None	2.00 - 3.00	13,745	4.8
Ln	Loring silty clay loam, severely eroded strongly sloping phase	7E	None	2.00 - 3.00	4214	1.5
Ma	Memphis silt loam, eroded very gently sloping phase	2E	None	6.00 - 6.00	7666	2.7
Mb	Memphis silt loam, eroded gently sloping phase	3E	None	6.00 - 6.00	450	0.2
Mc	Memphis silt loam, eroded sloping phase	4E	None	6.00 - 6.00	118	0.0
Md	Memphis silt loam, eroded strongly sloping phase	6E	None	6.00 - 6.00	1492	0.5
Me	Memphis silt loam, eroded moderately steep phase	6E	None	6.00 - 6.00	1994	0.7
Mf	Memphis silty clay loam, severely eroded very gently sloping phase	3E	None	6.00 - 6.00	660	0.2
Mg	Memphis silty clay loam, severely eroded gently sloping phase	4E	None	6.00 - 6.00	3473	1.2
Mh	Memphis silty clay loam, severely eroded sloping phase	6E	None	6.00 - 6.00	776	0.3
Mk	Memphis silty clay loam, severely eroded strongly sloping phase	6E	None	6.00 - 6.00	1967	0.7
Ml	Memphis silty clay loam, severely eroded moderately steep phase	6E	None	6.00 - 6.00	813	0.3
Mm	Mhoon silty clay, nearly level phase	2W	Rare	2.00 - 3.00	1166	0.4
Na	Natchez silt loam, steep phase	6E	None	6.00 - 6.00	1989	0.7
Oa	Oliver silt loam, nearly level phase (Loring)	2W	None	2.00 - 3.00	176	0.1
Ob	Oliver silt loam, eroded very gently sloping phase (Loring)	2E	None	2.00 - 3.00	2758	1.0
Oc	Oliver silt loam, severely eroded gently sloping phase (Loring)	4E	None	2.00 - 3.00	239	0.1
Ra	Richland silt loam, very gently sloping phase (Loring)	2E	None	2.00 - 3.00	482	0.2
Rb	Richland silt loam, eroded very gently sloping phase (Loring)	2E	None	2.00 - 3.00	2678	0.9
Rc	Richland silt loam, severely eroded very gently sloping phase (Loring)	3E	None	2.00 - 3.00	1062	0.4
Rd	Richland silt loam, severely eroded gently sloping phase (Loring)	4E	None	2.00 - 3.00	1949	0.7
Re	Richland silt loam, severely eroded sloping phase (Loring)	6E	None	2.00 - 3.00	457	0.2
Rf	Robinsonville very fine sandy loam, nearly level phase	1	Rare	4.00 - 6.00	190	0.1
Sa	Sharkey clay, nearly level phase	3E	Rare	0.00 - 2.00	3066	1.1
Sb	Sharkey clay, level phase	3W	Rare	0.00 - 2.00	1697	0.6

Sc	Sharkey very fine sandy loam, very gently sloping overwash	3E	Rare	0.00 - 2.00	234	0.1
Va	Vicksburg silt loam	2W	Occas	2.50 - 4.00	3301	1.2
Vb	Vicksburg and Collins silt loams, local alluvium phases	2W	Occas	2.50 - 4.00	5171	1.8
Vb	Vicksburg and Collins silt loams, local alluvium phases	2W	Occas	2.00 - 5.00	*	*
Wa	Waverly silty clay loam (Rosebloom)	5W	Freq	0.00 - 1.00	592	0.2
	Total				283,520	100.0

Source: USDA, Soil Conservation Service, State Conservationist, Jackson, MS. Figures were compiled in 1989, but based on the DeSoto County Soil Survey, 1959, USDA Soil Conservation Service.

* Denotes soils complexes that occur in such an intricate pattern that it was not practical to map them separately. Acreage and proportional extent figures for these soils are listed as a lump sum at the first listing of the complex.

USDA, Soil Conservation Service
Soil Series Map Unit Information

Grenada County, Mississippi

Map Symbol	Soil Series Map Unit Name	Capability Class	Annual Flood	Range of Depth to Seasonal High Water Table (feet)	Acres	Percent
AT	Alligator association	5W	Freq	0.50 - 2.00	2790	1.0
Ac	Alligator clay	3W	Rare	0.50 - 2.00	416	0.1
Ad	Alligator clay, depressional	5W	Freq	0.50 - 2.00	381	0.1
As	Alligator silty clay loam	3W	Rare	0.50 - 2.00	1389	0.5
Ba	Borrow area	8S	Freq		92	<0.1
BtF	Boswell-Tippah complex, 17 to 40 percent slopes (Sweatman, Tippah)	7E	None	6.00 - 6.00	7264	2.6
BtF	Boswell-Tippah complex, 17 to 40 percent slopes (Sweatman, Tippah)	4E	None	2.00 - 2.50	*	*
CRF	Cuthbert-Ruston Association, hilly (Sweatman, Smithdale)	7E	None	6.00 - 6.00	22,520	8.1
CRF	Cuthbert-Ruston Association, hilly (Sweatman, Smithdale)	7E	None	6.00 - 6.00	*	*
CaA	Calloway silt loam, 0 to 2 percent slopes	2E	None	1.00 - 2.00	6375	2.3
CaB	Calloway silt loam, 2 to 5 percent slopes	3E	None	1.00 - 2.00	1846	0.7
Cc	Cascilla silt loam	1	Rare	6.00 - 6.00	325	0.1
Cm	Collins silt loam	2W	Occas	2.00 - 5.00	16,945	6.1
Cn	Collins silt loam, local alluvium	2W	Occas	2.00 - 5.00	2760	1.0
CxE	Cuthbert-Ruston complex, 12 to 17 percent slopes (Sweatman, Smithdale)	7E	None	6.00 - 6.00	1140	0.4
CxE	Cuthbert-Ruston complex, 12 to 17 percent slopes (Sweatman, Smithdale)	6E	None	6.00 - 6.00	*	*
CxE2	Cuthbert-Ruston complex, 12 to 17 percent slopes, eroded (Sweatman, Smithdale)	7E	None	6.00 - 6.00	2160	0.8
CxE2	Cuthbert-Ruston complex, 12 to 17 percent slopes, eroded (Sweatman, Smithdale)	6E	None	6.00 - 6.00	*	*
Db	Dubbs silty clay loam	1	None	6.00 - 6.00	151	0.1
DuB2	Dulac silt loam, 2 to 5 percent slopes, eroded	2E	None	1.00 - 2.00	140	0.1
DuC2	Dulac silt loam, 5 to 8 percent slopes, eroded	3E	None	1.00 - 2.00	1110	0.4
DuC3	Dulac silt loam, 5 to 8 percent slopes, severely eroded	4E	None	1.00 - 2.00	3880	1.4
FC	Falaya-Collins Association	4W	Freq	1.00 - 2.00	6220	2.2
FC	Falaya-Collins Association	4W	Freq	2.00 - 5.00	*	*
Ff	Falaya silt loam	2W	Occas	1.00 - 2.00	29,160	10.5
Fl	Falaya silt loam, local alluvium	2W	Occas	1.00 - 2.00	2680	1.0
Fo	Forestdale silty clay loam	3W	Rare	0.50 - 2.00	337	0.1
Gp	Gravel pits	8S	None		500	0.2
GrA	Grenada silt loam, 0 to 2 percent slopes	2E	None	1.50 - 2.50	1960	0.7
GrB2	Grenada silt loam, 2 to 5 percent slopes, eroded	2E	None	1.50 - 2.50	5130	1.9
GrB3	Grenada silt loam, 2 to 5 percent slopes, severely eroded	3E	None	1.50 - 2.50	554	0.2
GrC2	Grenada silt loam, 5 to 8 percent slopes, eroded	3E	None	1.50 - 2.50	222	0.1
GrC3	Grenada silt loam, 5 to 8 percent slopes, severely eroded	4E	None	1.50 - 2.50	3603	1.3
Gs	Gullied land, clayey	7E	None	6.00 - 6.00	2875	1.0
Gt	Gullied land, sandy	7E	None	6.00 - 6.00	11,620	4.2
Gu	Gullied land, silty	7E	None	6.00 - 6.00	28,180	10.2
He	Henry silt loam	3W	None	0.50 - 1.50	1650	0.6
LoA	Loring silt loam, 0 to 2 percent slopes	2W	None	2.00 - 3.00	260	0.1
LoB2	Loring silt loam, 2 to 5 percent slopes, eroded	2E	None	2.00 - 3.00	554	0.2
LoB3	Loring silt loam, 2 to 5 percent slopes, severely eroded	3E	None	2.00 - 3.00	166	0.1
LoC2	Loring silt loam, 5 to 8 percent slopes, eroded	3E	None	2.00 - 3.00	915	0.3
LoC3	Loring silt loam, 5 to 8 percent slopes, severely eroded	4E	None	2.00 - 3.00	4082	1.5
LoD2	Loring silt loam, 8 to 12 percent slopes, eroded	4E	None	2.00 - 3.00	277	0.1
LoD3	Loring silt loam, 8 to 12 percent slopes, severely eroded	6E	None	2.00 - 3.00	3860	1.4

MeA	Memphis silt loam, 0 to 2 percent slopes	1	None	6.00 - 6.00	1386	0.5
MeB2	Memphis silt loam, 2 to 5 percent slopes, eroded	2E	None	6.00 - 6.00	277	0.1
MeC3	Memphis silt loam, 5 to 8 percent slopes, severely eroded	4E	None	6.00 - 6.00	2840	1.0
MeD3	Memphis silt loam, 8 to 12 percent slopes, severely eroded	6E	None	6.00 - 6.00	1960	0.7
MeE	Memphis silt loam, 12 to 17 percent slopes	6E	None	6.00 - 6.00	1940	0.7
MeE2	Memphis silt loam, 12 to 17 percent slopes, eroded	6E	None	6.00 - 6.00	4711	1.7
MeF	Memphis silt loam, 17 to 40 percent slopes	7E	None	6.00 - 6.00	7760	2.8
MeF3	Memphis silt loam, 17 to 50 percent slopes, severely eroded	7E	None	6.00 - 6.00	850	0.3
MgF	Memphis-Guin complex, 17 to 50 percent slopes (Memphis, Saffell)	7E	None	6.00 - 6.00	4078	1.5
MgF	Memphis-Guin complex, 17 to 50 percent slopes (Memphis, Saffell)	7E	None	6.00 - 6.00	*	*
Mx	Mixed alluvial land				1940	0.7
PAF	Providence-Loring Association, hilly (Providence-Memphis)		None	1.50 - 3.00	7105	2.6
PAF	Providence-Loring Association, hilly (Providence Memphis)	6E	None	6.00 - 6.00	*	*
PcD2	Providence-Loring complex, 8 to 12 percent slopes, eroded	4E	None	1.50 - 3.00	830	0.3
PcD2	Providence-Loring complex, 8 to 12 percent slopes, eroded	4E	None	2.00 - 3.00	*	*
PcE	Providence-Loring complex, 12 to 17 percent slopes		None	1.50 - 3.00	760	0.3
PcE	Providence-Loring complex, 12 to 17 percent slopes		None	2.00 - 3.00	*	*
PcE2	Providence-Loring complex, 12 to 17 percent slopes, eroded		None	1.50 - 3.00	1140	0.4
PcE2	Providence-Loring complex, 12 to 17 percent slopes, eroded		None	2.00 - 3.00	*	*
PrC2	Providence silt loam, 5 to 8 percent slopes, eroded	3E	None	1.50 - 3.00	275	0.1
PrC3	Providence silt loam, 5 to 8 percent slopes, severely eroded	4E	None	1.50 - 3.00	1690	0.6
RCF	Ruston-Cuthbert Association, hilly (Smithdale, Sweatman)	7E	None	6.00 - 6.00	21,660	7.8
RCF	Ruston-Cuthbert Association, hilly (Smithdale, Sweatman)	7E	None	6.00 - 6.00	*	*
RPF	Ruston-Providence Association, hilly (Smithdale, Providence)	7E	None	6.00 - 6.00	7260	2.6
RPF	Ruston-Providence Association, hilly (Smithdale, Providence)		None	1.50 - 3.00	*	*
RxE	Ruston-Providence complex, 12 to 17 percent slopes (Smithdale, Providence)	6E	None	6.00 - 6.00	420	0.1
RxE	Ruston-Providence complex, 12 to 17 percent slopes (Smithdale, Providence)		None	1.50 - 3.00	*	*
RxE2	Ruston-Providence complex, 12 to 17 percent slopes, eroded (Smithdale, Providence)	6E	None	6.00 - 6.00	580	0.2
RxE2	Ruston-Providence complex, 12 to 17 percent slopes, eroded (Smithdale, Providence)		None	1.50 - 3.00	*	*
Sa	Sandy alluvial land				720	0.3
Sp	Sand pits	8S	None		490	0.2
TbD	Tippah-Boswell complex, 8 to 12 percent slopes (Tippah, Sweatman)	4E	None	2.00 - 2.50	554	0.2
TbD	Tippah-Boswell complex, 8 to 12 percent slopes (Tippah, Sweatman)	6E	None	6.00 - 6.00	*	*
TbD2	Tippah-Boswell complex, 8 to 12 percent slopes, eroded (Tippah, Sweatman)	4E	None	2.00 - 2.50	2220	0.8
TbD2	Tippah-Boswell complex, 8 to 12 percent slopes, eroded (Tippah, Sweatman)	6E	None	6.00 - 6.00	*	*
TbE	Tippah-Boswell complex, 12 to 17 percent slopes (Tippah, Sweatman)	4E	None	2.00 - 2.50	2030	0.7
TbE	Tippah-Boswell complex, 12 to 17 percent slopes (Tippah, Sweatman)	7E	None	6.00 - 6.00	*	*
TbE2	Tippah-Boswell complex, 12 to 17 percent slopes, eroded (Tippah, Sweatman)	4E	None	2.00 - 2.50	1920	0.7
TbE2	Tippah-Boswell complex, 12 to 17 percent slopes, eroded (Tippah, Sweatman)	7E	None	6.00 - 6.00	*	*
Vb	Vicksburg silt loam	2W	Occas	2.50 - 4.00	415	0.1
Vc	Vicksburg silt loam, local alluvium	2W	Occas	2.50 - 4.00	220	0.1

WF	Waverly-Falaya Association	5W	Freq	0.50 - 1.00	12,900	4.7
WF	Waverly-Falaya Association	4W	Freq	1.00 - 2.00	•	•
Ws	Waverely silt loam	3W	Occas	0.50 - 1.00	9700	3.5
Total					277,120	100.0

Source: USDA, Soil Conservation Service, State Conservationist, Jackson, MS. Figures were compiled in 1989, but based on the Grenada County Soil Survey, 1967, USDA Soil Conservation Service.

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USDA, Soil Conservation Service
Soil Series Map Unit Information

Holmes County, Mississippi

Map Symbol	Soil Series Map Unit Name	Capability Class	Annual Flood	Range of Depth to Seasonal High Water Table (feet)	Acres	Percent
1	Adler silt loam, occasionally flooded	2W	Occas	2.00 - 3.00	8775	6.8
3	Morganfield silt loam, occasionally flooded	2W	Occas	3.00 - 4.00	4721	3.6
4	Bruno sandy loam, occasionally flooded	3S	Occas	4.00 - 6.00	2503	1.9
6	Providence silt loam, 5 to 8 percent slopes, eroded	3E	None	1.50 - 3.00	*	*
7	Providence silt loam, 8 to 12 percent slopes, eroded	4E	None	1.50 - 3.00	*	*
8	Providence silt loam, 8 to 12 percent slopes, severely eroded	6E	None	1.50 - 3.00	*	*
9	Smithdale sandy loam, 12 to 30 percent slopes, eroded	7E	None	6.00 - 6.00	*	*
10	Smithdale-Providence Association, hilly	7E	None	6.00 - 6.00	*	*
10	Smithdale-Providence Association, hilly		None	1.50 - 3.00	*	*
11	Smithdale-Udorthents complex, gullied	7E	None	6.00 - 6.00	*	*
12	Oaklimeter silt loam, occasionally flooded	2W	Occas	1.50 - 2.50	17	<0.1
14	Sharkey clay, occasionally flooded	4W	Occas	0.00 - 2.00	14,484	11.0
15	Crevasse sand, occasionally flooded	4S	Occas	3.50 - 6.00	*	*
16	Sharkey clay, depressional	4W	Occas	0.00 - 2.00	7635	5.8
17	Sharkey silty clay loam, occasionally flooded	4W	Occas	0.00 - 2.00	5147	3.9
20	Grenada silt loam, 0 to 2 percent slopes	2E	None	1.50 - 2.50	*	*
21	Sharkey clay, frequently flooded	5W	Freq	0.00 - 2.00	25,748	19.6
22	Dubbs silt loam, 0 to 2 percent slopes	1	None	6.00 - 6.00	16,862	12.8
23	Dubbs silt loam, 2 to 5 percent slopes	2E	None	6.00 - 6.00	3763	2.9
24	Dundee silt loam, 0 to 2 percent slopes	3W	Occas	1.50 - 3.50	14,546	11.1
25	Dundee silt loam, 2 to 5 percent slopes	2E	None	1.50 - 3.50	1948	1.6
26	Calloway silt loam, 0 to 2 percent slopes	2E	None	1.00 - 2.00	*	*
27	Dundee silty clay loam, 0 to 2 percent slopes	3W	Occas	1.50 - 3.50	6381	4.9
28	Forestdale silty clay loam, 0 to 2 percent slopes	3W	Rare	0.50 - 2.00	10,279	7.8
29	Dundee silty clay loam, 2 to 5 percent slopes	3W	Occas	1.50 - 3.50	*	*
30	Memphis silt loam, 0 to 2 percent slopes	1	None	6.00 - 6.00	3818	2.9
31	Memphis silt loam, 2 to 5 percent slopes, eroded		None	6.00 - 6.00	*	*
33	Memphis silt loam, 5 to 8 percent slopes, eroded		None	6.00 - 6.00	*	*
34	Memphis-Natchez Association, hilly	6E	None	6.00 - 6.00	*	*
34	Memphis-Natchez Association, hilly	7E	None	6.00 - 6.00	*	*
35	Memphis silt loam, 8 to 12 percent slopes, eroded		None	6.00 - 6.00	*	*
36	Memphis silt loam, 8 to 12 percent slopes, severely eroded	6E	None	6.00 - 6.00	*	*
37	Memphis silt loam, 12 to 40 percent slopes, eroded		None	6.00 - 6.00	*	*
38	Providence silt loam, 5 to 8 percent slopes, severely eroded	4E	None	1.50 - 3.00	*	*
39	Pits-Udorthents complex	8S	None	* - *	584	<0.1
39	Pits-Udorthents complex	3E	None	5.00 - 5.00	*	*
40	Loring silt loam, 2 to 5 percent slopes, eroded	3E	None	2.00 - 3.00	*	*
41	Loring silt loam, 5 to 8 percent slopes, eroded	4E	None	2.00 - 3.00	*	*
42	Loring silt loam 8 to 12 percent slopes, severely eroded	6E	None	2.00 - 3.00	*	*
43	Loring silt loam, 8 to 12 percent slopes, eroded	6E	None	2.00 - 3.00	*	*
44	Memphis-Udorthents complex, gullied	7E	None	6.00 - 6.00	*	*
45	Adler and Bruno soils, frequently flooded	4W	Freq	2.00 - 3.00	4234	3.2
45	Adler and Bruno soils, frequently flooded	5W	Freq	4.00 - 6.00	*	*
	Total				**131,445	100.0

Source: USDA, Soil Conservation Service, State Conservationist, Jackson, MS. Figures were compiled in 1989, but based on the Holmes County Soil Survey, preliminary map sheets, USDA Soil Conservation Service.

* Denotes soils complexes that occur in such an intricate pattern that it was not practical to map them separately. Acreage and proportional extent figures for these soils are listed as a lump sum at the first listing of the complex.

** Total acres reflects only the area within the study area and not the entire county.

USDA, Soil Conservation Service
Soil Series Map Unit Information

Humphreys County, Mississippi

Map Symbol	Soil Series Map Unit Name	Capability Class	Annual Flood	Range of Depth to Seasonal High Water Table (feet)	Acres	Percent
	Swamp	5W	Freq		2871	1.1
Aa	Alligator clay, level phase	3W	Rare	0.50 - 2.00	16,016	6.1
Ab	Alligator clay, level overflow phase	5W	Freq	0.50 - 2.00	1586	0.6
Ac	Alligator clay, nearly level phase	3W	Rare	0.50 - 2.00	68,045	25.9
Ad	Alligator clay, nearly level overflow phase	5W	Freq	0.50 - 2.00	5247	2.0
Ae	Alligator clay, gently sloping phase	3E	Rare	0.50 - 2.00	1546	0.6
Ag	Alligator silty clay loam, nearly level phase	3W	Rare	0.50 - 2.00	9594	3.7
Ah	Alligator silty clay loam, nearly level overflow phase	5W	Freq	0.50 - 2.00	1495	0.6
Ak	Alligator silty clay loam, gently sloping phase	3E	Rare	0.50 - 2.00	224	0.1
Am	Alligator-Dowling clays, overflow phase (Alligator, Alligator)	5W	Freq	0.50 - 2.00	11,056	4.2
Am	Alligator-Dowling clays, overflow phase (Alligator, Alligator)	5W	Freq	0.50 - 2.00	*	*
An	Alligator, Dowling, and Forestdale soils, overflow phases (Alligator, Alligator, Forestdale)	5W	Freq	0.50 - 2.00	20,398	7.8
An	Alligator, Dowling, and Forestdale soils, overflow phases (Alligator, Alligator, Forestdale)	5W	Freq	0.50 - 2.00	*	*
An	Alligator, Dowling, and Forestdale soils, overflow phases (Alligator, Alligator, Forestdale)	5W	Freq	0.50 - 2.00	*	*
Da	Dowling clay (Alligator)	4W	Occas	0.50 - 2.00	21,914	8.3
Db	Dowling clay, overflow phase (Alligator)	5W	Freq	0.50 - 2.00	6317	2.4
Dc	*Dowling soils (Alligator)*	4W	Occas	0.50 - 2.00	8378	3.2
Dd	Dowling soils, overflow phases (Alligator)	5W	Freq	0.50 - 2.00	1420	0.5
De	Dubbs silt loam	1	None	6.00 - 6.00	394	0.1
Dg	Dubbs very fine sandy loam, nearly level phase	1	None	6.00 - 6.00	1480	0.6
Dh	Dubbs very fine sandy loam, gently sloping phase	2E	None	6.00 - 6.00	572	0.2
Dk	Dundee silty clay loam, nearly level phase	2W	Rare	1.50 - 3.50	692	0.3
Dm	Dundee silty clay loam, gently sloping phase	2E	Rare	1.50 - 3.50	389	0.1
Dn	Dundee silty loam, nearly level phase	2W	Rare	1.50 - 3.50	5087	1.9
Do	Dundee silty loam, gently sloping phase	2E	Rare	1.50 - 3.50	3220	1.2
Dp	Dundee very fine sandy loam	2W	Rare	1.50 - 3.50	4943	1.9
Dr	Dundee-Pearson silt loams (Dundee, Askew)	2W	Rare	1.50 - 3.50	2268	0.9
Dr	Dundee-Pearson silt loams (Dundee, Askew)	1	None	1.00 - 2.00	*	*
Fa	Forestdale silty clay, nearly level phase	3W	Rare	0.50 - 2.00	5275	2.0
Fb	Forestdale silty clay, gently sloping phase	3W	Rare	0.50 - 2.00	530	0.2
Fc	Forestdale silty clay loam, level phase	3W	Rare	0.50 - 2.00	1017	0.4
Fd	Forestdale silty clay loam, nearly level phase	3W	Rare	0.50 - 2.00	24,008	9.2
Fe	Forestdale silty clay loam, nearly level overflow phase	5W	Freq	0.50 - 2.00	2679	1.0
Fg	Forestdale silty clay loam, nearly level shallow phase	3W	Rare	0.50 - 2.00	893	0.3
Fh	Forestdale silty clay loam, gently sloping phase	3W	Rare	0.50 - 2.00	1943	0.7
Fk	Forestdale silty clay loam, gently sloping overflow phase	5W	Freq	0.50 - 2.00	1291	0.5
Fm	Forestdale silt loam, nearly level phase	3W	Rare	0.50 - 2.00	12,857	4.9
Fn	Forestdale silt loam, nearly level overflow phase	5W	Freq	0.50 - 2.00	747	0.3
Fo	Forestdale silt loam, nearly level moderately shallow phase	3W	Rare	0.50 - 2.00	1353	0.5
Fp	Forestdale silt loam, gently sloping phase	3W	Rare	0.50 - 2.00	2116	0.8
Fr	Forestdale silt loam, moderately eroded sloping phase	3W	Rare	0.50 - 2.00	235	0.1
Fs	Forestdale very fine sandy loam, nearly level phase	3W	Rare	0.50 - 2.00	5539	2.1

Ft	Forestdale very fine sandy loam, gently sloping phase	3W	Rare	0.50 - 2.00	490	0.2
Fu	Forestdale-Brittain silt loams (Forestdale, Amagon)	3W	Rare	0.50 - 2.00	6005	2.3
Fu	Forestdale-Brittain silt loams (Forestdale, Amagon)	3W	Rare	1.00 - 2.00	*	*
Ia	Iberia clay (Sharkey)	3E	Rare	0.00 - 2.00	270	0.1
	Total				262,400	100.0

Source: USDA, Soil Conservation Service, State Conservationist, Jackson, MS. Figures were compiled in 1989, but based on the Humphreys County Soil Survey, 1959, USDA Soil Conservation Service.

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USDA, Soil Conservation Service
Soil Series Map Unit Information

Issaquena County, Mississippi

Map Symbol	Soil Series Map Unit Name	Capability Class	Annual Flood	Range of Depth to Seasonal High Water Table (feet)	Acres	Percent
Af	Alluvial land				26,530	10.0
Ba	Beulah very fine sandy loam, 0 to 3 percent slopes	2S	Rare	6.00 - 6.00	870	0.3
Bk	Bowdre clay, 0 to 2 percent slopes	2W	Rare	1.50 - 2.00	6480	2.4
Bm	Bowdre clay, 2 to 5 percent slopes	2W	Rare	1.50 - 2.00	580	0.2
Bp	Borrow pits	8S	None		5100	1.9
Cb	Commerce silt loam, 0 to 2 percent slopes	2E	Rare	1.50 - 4.00	6670	2.5
Cd	Commerce silt loam, moderately shallow, 0 to 2 percent slopes	2E	Rare	1.50 - 4.00	1120	0.4
Ch	Commerce silty clay loam, 0 to 2 percent slopes	2W	Rare	0.00 - 3.00	16,200	6.1
Ck	Commerce silty clay loam, 2 to 5 percent slopes	2E	Rare	1.50 - 4.00	2290	0.9
Cm	Commerce silty clay loam, moderately shallow, 0 to 2 percent slopes	2E	Rare	1.50 - 4.00	2230	0.8
Cn	Commerce very fine sandy loam, 0 to 2 percent slopes	2E	Rare	1.50 - 4.00	3260	1.2
Cr	Commerce very fine sandy loam, 2 to 5 percent slopes	2E	Rare	1.50 - 4.00	645	0.2
Cv	Crevasse sandy loams and loamy sands, 0 to 3 percent slopes (Bruno)	3S	Occas	4.00 - 6.00	1900	0.7
Da	Dowling clay (Sharkey)	4W	Occas	0.00 - 2.00	31,813	12.0
Db	Dowling soils (Sharkey)	4W	Occas	0.00 - 2.00	1485	0.6
Df	Dundee silt loam, 0 to 2 percent slopes	2W	Rare	1.50 - 3.50	390	0.1
Dk	Dundee silty clay loam, 0 to 2 percent slopes	2W	Rare	1.50 - 3.50	360	0.1
Fd	Forestdale silty clay loam, 0 to 2 percent slopes	3W	Rare	0.50 - 2.00	380	0.1
Le	*Levee berms*	7E	None	6.00 - 6.00	2720	1.0
Mh	Mhoon silty clay, 0 to 2 percent slopes	2W	Rare	0.00 - 3.00	440	0.2
Ro	Robinsonville very fine sandy loam, 0 to 2 percent slopes	1	Rare	4.00 - 6.00	1555	0.6
Rs	Robinsonville very fine sandy loam, 2 to 5 percent slopes	2E	Rare	4.00 - 6.00	385	0.1
Sa	Sharkey clay, 0 to 1 percent slopes	3W	Rare	0.00 - 2.00	740	0.3
Sb	Sharkey clay, 0 to 2 percent slopes	3E	Rare	0.00 - 2.00	23,375	8.8
Sc	Sharkey clay, 2 to 5 percent slopes	3E	Rare	0.00 - 2.00	910	0.3
Se	Sharkey silty clay loam, 0 to 2 percent slopes	3E	Rare	0.00 - 2.00	9025	3.4
Sf	Sharkey fine sandy loam, overwash, 0 to 2 percent slopes	3E	Rare	0.00 - 2.00	865	0.3
Sk	Sharkey silt loam, overwash, 0 to 2 percent slopes	3E	Rare	0.00 - 2.00	2380	0.9
Sr	Sharkey and Dowling clays (Sharkey, Sharkey)	5W	Freq	0.00 - 2.00	95,177	35.8
Sr	Sharkey and Dowling clays (Sharkey, Sharkey)	5W	Freq	0.00 - 2.00	*	*
Ta	Tunica clay, 0 to 2 percent slopes	3W	Rare	1.50 - 3.00	15,920	6.0
Tb	Tunica clay, 2 to 5 percent slopes	3E	Rare	1.50 - 3.00	785	0.3
Tc	Tunica silty clay loam, 0 to 2 percent slopes	3W	Rare	1.50 - 3.00	2660	1.0
	Total				265,420	100.0

Source: USDA, Soil Conservation Service, State Conservationist, Jackson, MS. Figures were compiled in 1989, but based on the Issaquena County Soil Survey, 1961, USDA Soil Conservation Service.

* Denotes soils complexes that occur in such an intricate pattern that it was not practical to map them separately. Acreage and proportional extent figures for these soils are listed as a lump sum at the first listing of the complex.

USDA, Soil Conservation Service
Soil Series Map Unit Information

Leflore County, Mississippi

Map Symbol	Soil Series Map Unit Name	Capability Class	Annual Flood	Range of Depth to Seasonal High Water Table (feet)	Acres	Percent
	Bayous				2509	0.7
	Home sites				4875	1.3
	Pits				199	0.1
	Water				6434	1.7
Aa	Alligator clay, level phase	3W	Rare	0.50 - 2.00	7983	2.1
Ab	Alligator clay, level overflow phase	5W	Freq	0.50 - 2.00	66	<0.1
Ac	Alligator clay, nearly level phase	3W	Rare	0.50 - 2.00	61,955	16.5
Ad	Alligator clay, nearly level overflow phase	5W	Freq	0.50 - 2.00	8772	2.3
Ae	Alligator clay, gently sloping phase	3E	Rare	0.50 - 2.00	3536	0.9
Af	Alligator silt loam, overwash phase	5W	Freq	0.50 - 2.00	694	0.2
Ag	Alligator silty clay loam, nearly level phase	3W	Rare	0.50 - 2.00	17,545	4.7
Ah	Alligator silty clay loam, gently sloping phase	3E	Rare	0.50 - 2.00	836	0.2
Ak	Alligator and Dowling clays, overflow phases (Alligator, Alligator)	5W	Freq	0.50 - 2.00	21,611	5.7
Ak	Alligator and Dowling clays, overflow phases (Alligator, Alligator)	5W	Freq	0.50 - 2.00	•	•
Am	Alligator, Dowling, and Forestdale soils (Alligator, Alligator, Forestdale)	3E	Rare	0.50 - 2.00	5094	1.4
Am	Alligator, Dowling, and Forestdale soils (Alligator, Alligator, Forestdale)	5W	Freq	0.50 - 2.00	•	•
Am	Alligator, Dowling, and Forestdale soils (Alligator, Alligator, Forestdale)	3W	Rare	0.50 - 2.00	•	•
An	Alligator, Dowling, and Forestdale soils, overflow phases (Alligator, Alligator, Forestdale)	5W	Freq	0.50 - 2.00	2338	0.6
An	Alligator, Dowling, and Forestdale soils, overflow phases (Alligator, Alligator, Forestdale)	5W	Freq	0.50 - 2.00	•	•
An	Alligator, Dowling, and Forestdale soils, overflow phases (Alligator, Alligator, Forestdale)	5W	Freq	0.50 - 2.00	•	•
Ao	Alligator-Forestdale soils, gently sloping phase	3E	Rare	0.50 - 2.00	1103	0.3
Ao	Alligator-Forestdale soils, gently sloping phases	3W	Rare	0.50 - 2.00	•	•
Ap	Alligator-Forestdale soils, sloping phases	3E	Rare	0.50 - 2.00	228	0.1
Ap	Alligator-Forestdale soils, sloping phases	3W	Rare	0.50 - 2.00	•	•
Ar	Alligator-Forestdale soils, strongly sloping phases	3E	Rare	0.50 - 2.00	95	<0.1
Ar	Alligator-Forestdale soils, strongly sloping phases	3W	Rare	0.50 - 2.00	•	•
Ba	Beulah very fine sandy loam, gently sloping phase	2S	None	6.00 - 6.00	161	<0.1
Bb	Bosket very fine sandy loam, nearly level phase (Dubbs)	1	None	6.00 - 6.00	1359	0.4
Bc	Bosket very fine sandy loam, gently sloping phase (Dubbs)	2E	None	6.00 - 6.00	360	0.1
Ca	Collins silt loam (Alder)	1	Rare	2.00 - 3.00	2622	0.7
Da	Dowling clay (Alligator)	4W	Occas	0.50 - 2.00	37,793	10.0
Db	Dowling soils (Alligator)	3W	Rare	0.50 - 2.00	19,604	5.2
Dc	Dubbs silt loam, nearly level phase	1	None	6.00 - 6.00	1254	0.3
Dd	Dubbs silt loam, gently sloping phase	3E	None	6.00 - 6.00	703	0.2
De	Dubbs silt loam, sloping phase	3E	None	6.00 - 6.00	48	<0.1
Df	Dubbs very fine sandy loams, nearly level phase	1	None	6.00 - 6.00	12,526	3.3
Dg	Dubbs very fine sandy loam, gently sloping phase	2E	None	6.00 - 6.00	6509	1.7
Dh	Dubbs very fine sandy loam, sloping phase	3E	None	6.00 - 6.00	896	0.2
Dk	Dundee silt loam, nearly level phase	2W	Rare	1.50 - 3.50	11,452	3.0
Dm	Dundee silt loam, gently sloping phase	2E	Rare	1.50 - 3.50	4143	1.1
Dn	Dundee silt loam, sloping phase	3E	Rare	1.50 - 3.50	294	0.1
Do	Dundee silty clay loam, nearly level phase	2W	Rare	1.50 - 3.50	8230	2.2

Dp	Dundee silty clay loam, gently sloping phase	2E	Rare	1.50 - 3.50	3487	0.9
Dr	Dundee very fine sandy loam, nearly level phase	2W	Rare	1.50 - 3.50	22,485	6.0
Ds	Dundee very fine sandy loam, gently sloping phase	2E	Rare	1.50 - 3.50	6158	1.6
Dt	Dundee very fine sandy loam, sloping phase	3E	Rare	1.50 - 3.50	1123	0.3
Du	Dundee-Bosket soils, sloping phases (Dubbs)	3E	Rare	1.50 - 3.50	1539	0.4
Du	Dundee-Bosket soils, sloping phases (Dubbs)	3E	None	6.00 - 6.00	*	*
Fa	Falaya silt loam	2W	Occas	1.00 - 2.00	5294	1.4
Fb	Falaya silty clay loam (Arkabutla)	2W	Occas	1.00 - 1.50	1587	0.4
Fc	Falaya silty clay loam, moderately shallow phase (Arkabutla)	2W	Occas	1.00 - 1.50	1368	0.4
Fd	Falaya-Ina-Collins soils (Falaya, Adler, Adler)	4W	Freq	1.00 - 2.00	5217	1.4
Fd	Falaya-Ina-Collins soils (Falaya, Adler, Adler)	4W	Freq	2.00 - 3.00	*	*
Fd	Falaya-Ina-Collins soils (Falaya, Adler, Adler)	4W	Freq	2.00 - 3.00	*	*
Fe	Forestdale silt loam, nearly level phase	3W	Rare	0.50 - 2.00	14,152	3.8
Ff	Forestdale silt loam, gently sloping phase	3W	Rare	0.50 - 2.00	3111	0.8
Fg	Forestdale silty clay, nearly level phase	3W	Rare	0.50 - 2.00	76	<0.1
Fh	Forestdale silty clay loam, nearly level phase	3W	Rare	0.50 - 2.00	28,967	7.7
Fk	Forestdale silty clay loam, nearly level moderately shallow phase	3W	Rare	0.50 - 2.00	817	0.2
Fm	Forestdale silty clay loam, nearly level overflow phase	5W	Freq	0.50 - 2.00	1178	0.3
Fn	Forestdale silty clay loam, gently sloping phase	3W	Rare	0.50 - 2.00	5009	1.3
Fo	Forestdale very fine sandy loam, nearly level phase	3W	Rare	0.50 - 2.00	5360	1.4
Ha	Hymon very fine sandy loam (Adler)	1	Rare	2.00 - 3.00	275	0.1
Ia	Ina silt loam (Adler)	1	Rare	2.00 - 3.00	998	0.3
Ib	Ina very fine sandy loam (Adler)	1	Rare	2.00 - 3.00	1340	0.4
Pa	Pearson silt loam, nearly level phase (Dubbs)	1	None	6.00 - 6.00	1321	0.3
Sa	Sandy alluvial land (Crevasse)	5W	Freq	3.50 - 6.00	1358	0.4
Sb	Swamp	5W	Freq		10,178	2.7
Wa	Waverly soils, local alluvium phases	3W	Occas	0.50 - 1.00	95	<0.1
	Total				376,320	100.0

Source: USDA, Soil Conservation Service, State Conservationist, Jackson, MS. Figures were compiled in 1989, but based on the Leflore County Soil Survey, 1959, USDA Soil Conservation Service.

* Denotes soils complexes that occur in such an intricate pattern that it was not practical to map them separately. Acreage and proportional extent figures for these soils are listed as a lump sum at the first listing of the complex.

USDA, Soil Conservation Service
Soil Series Map Unit Information

Panola County, Mississippi

Map Symbol	Soil Series Map Unit Name	Capability Class	Annual Flood	Range of Depth to Seasonal High Water Table (feet)	Acres	Percent
Aa	Alligator clay, 0 to 1/2 percent slopes	3W	Rare	0.50 - 2.00	7470	1.7
Ab	Alligator clay, 1/2 to 2 percent slopes	3W	Rare	0.50 - 2.00	1145	0.3
Ac	Alligator silt loam, overwash, 1/2 to 2 percent slopes	3W	Rare	0.50 - 2.00	530	0.1
Ad	Alligator silty clay loam, 0 to 1/2 percent slopes	3W	Rare	0.50 - 2.00	7935	1.8
Ae	Alligator silty clay loam, 1/2 to 2 percent slopes	3W	Rare	0.50 - 2.00	2365	0.5
CaA	Calloway silt loam, 0 to 2 percent slopes	2E	None	1.00 - 2.00	1375	0.3
CaB	Calloway silt loam, 2 to 5 percent slopes	3E	None	1.00 - 2.00	4002	0.9
Cm	Collins silt loam	2W	Occas	2.00 - 5.00	61,457	14.0
Co	Collins silt loam, local alluvium	2W	Occas	2.00 - 5.00	11,625	2.6
CpF2	Cuthbert and Providence soils, 12 to 35 percent slopes, eroded (Sweatman and Providence)	7E	None	6.00 - 6.00	900	0.2
CpF2	Cuthbert and Providence soils, 12 to 35 percent slopes, eroded (Sweatman and Providence)		None	1.50 - 3.00	•	•
Do	Dowling silty clay and clay (Alligator)	4W	Occas	0.50 - 2.00	2020	0.5
Fa	Falaya silt loam	2W	Occas	1.00 - 2.00	56,198	12.8
Fi	Falaya silt loam, local alluvium	2W	Occas	1.00 - 2.00	2438	0.6
Fs	Falaya silty clay loam (Arkabutla)	2W	Occas	1.00 - 1.50	4319	1.0
Fw	Falaya and Waverly silt loams	4W	Freq	1.00 - 2.00	4670	1.1
Fw	Falaya and Waverly silt loams	5W	Freq	0.50 - 1.00	•	•
GrA	Grenada silt loam, 0 to 2 percent slopes	2E	None	1.50 - 2.50	254	0.1
GrB	Grenada silt loam, 2 to 5 percent slopes	2E	None	1.50 - 2.50	486	0.1
GrB2	Grenada silt loam, 2 to 5 percent slopes, eroded	2E	None	1.50 - 2.50	8291	1.9
GrB3	Grenada silt loam, 2 to 5 percent slopes, severely eroded	2E	None	1.50 - 2.50	1817	0.4
GrC2	Grenada silt loam, 5 to 8 percent slopes, eroded	3E	None	1.50 - 2.50	881	0.2
GrC3	Grenada silt loam, 5 to 8 percent slopes, severely eroded	4E	None	1.50 - 2.50	11,496	2.6
GrD2	Grenada silt loam, 8 to 12 percent slopes, eroded (Loring)	4E	None	2.00 - 3.00	523	0.1
GrD3	Grenada silt loam, 8 to 12 percent slopes, severely eroded (Loring)	6E	None	2.00 - 3.00	1475	0.3
Gs	Gullied land, sandy	7E	None	6.00 - 6.00	43,048	9.8
Gu	Gullied land, silty	7E	None	6.00 - 6.00	67,889	15.5
He	Henry silt loam	3W	None	0.50 - 1.50	1722	0.4
LoB2	Loring silt loam, 2 to 5 percent slopes, eroded	2E	None	2.00 - 3.00	10,070	2.3
LoB3	Loring silt loam, 2 to 5 percent slopes, severely eroded	3E	None	2.00 - 3.00	10,217	2.3
LoC	Loring silt loam, 5 to 8 percent slopes	3E	None	2.00 - 3.00	315	0.1
LoC2	Loring silt loam, 5 to 8 percent slopes, eroded	3E	None	2.00 - 3.00	2611	0.6
LoC3	Loring silt loam, 5 to 8 percent slopes, severely eroded	4E	None	2.00 - 3.00	24,563	5.6
LoD	Loring silt loam, 8 to 12 percent slopes	4E	None	2.00 - 3.00	886	0.2
LoD2	Loring silt loam, 8 to 12 percent slopes, eroded	4E	None	2.00 - 3.00	721	0.2
LoD3	Loring silt loam, 8 to 12 percent slopes, severely eroded	6E	None	2.00 - 3.00	5575	1.3
LoE2	Loring silt loam, 12 to 17 percent slopes, eroded		None	2.00 - 3.00	6957	1.6
LoE3	Loring silt loam, 12 to 17 percent slopes, severely eroded	7E	None	2.00 - 3.00	5746	1.3
MeB2	Memphis silt loam, 2 to 5 percent slopes, eroded	2E	None	6.00 - 6.00	868	0.2
MeB3	Memphis silt loam, 2 to 5 percent slopes, severely eroded	3E	None	6.00 - 6.00	1251	0.3
MeC3	Memphis silt loam, 5 to 8 percent slopes, severely eroded	4E	None	6.00 - 6.00	2178	0.5
MiF2	Memphis and Loring silt loams, 17 to 35 percent slopes, eroded		None	6.00 - 6.00	9554	2.2
MiF2	Memphis and Loring silt loams, 17 to 35 percent slopes, eroded		None	2.00 - 3.00	•	•
MiF3	Memphis and Loring silt loams, 17 to 35 percent slopes, severely eroded	7E	None	6.00 - 6.00	1068	0.2

MiF3	Memphis and Loring silt loams, 17 to 35 percent slopes, severely eroded	7E	None	2.00 - 3.00	*	*
MnF2	Memphis, Natchez, and Guin soils, 17 to 40 percent slopes, eroded (Memphis, Natchez, Saffell)	7E	None	6.00 - 6.00	8514	1.9
MnF2	Memphis, Natchez, and Guin soils, 17 to 40 percent slopes, eroded (Memphis, Natchez, Saffell)	7E	None	6.00 - 6.00	*	*
MnF2	Memphis, Natchez, and Guin soils, 17 to 40 percent slopes, eroded (Memphis, Natchez, Saffell)	7E	None	6.00 - 6.00	*	*
Mx	Mixed alluvial land				11,567	2.6
RpE2	Ruston, Providence, and Eustis soils, 12 to 17 percent slopes, eroded (Smithdale, Providence and Eustis)	6E	None	6.00 - 6.00	5563	1.3
RpE2	Ruston, Providence, and Eustis soils, 12 to 17 percent slopes, eroded (Smithdale, Providence and Eustis)		None	1.50 - 3.00	*	*
RpE2	Ruston, Providence, and Eustis soils, 12 to 17 percent slopes, eroded (Smithdale, Providence and Eustis)	7S	None	6.00 - 6.00	*	*
RpF2	Ruston, Providence, and Eustis soils, 17 to 35 percent slopes, eroded (Smithdale, Providence and Eustis)	7E	None	6.00 - 6.00	18,692	4.3
RpF2	Ruston, Providence, and Eustis soils, 17 to 35 percent slopes, eroded (Smithdale, Providence and Eustis)		None	1.50 - 3.00	*	*
RpF2	Ruston, Providence, and Eustis soils, 17 to 35 percent slopes, eroded (Smithdale, Providence and Eustis)	7S	None	6.00 - 6.00	*	*
Wa	Waverly silt loam	5W	Freq	0.50 - 1.00	5153	1.2
	Total				438,400	100.0

Source: USDA, Soil Conservation Service, State Conservationist, Jackson, MS. Figures were compiled in 1989, but based on the Panola County Soil Survey, 1963, USDA Soil Conservation Service.

* Denotes soils complexes that occur in such an intricate pattern that it was not practical to map them separately. Acreage and proportional extent figures for these soils are listed as a lump sum at the first listing of the complex.

USDA, Soil Conservation Service
Soil Series Map Unit Information

Quitman County, Mississippi

Map Symbol	Soil Series Map Unit Name	Capability Class	Annual Flood	Range of Depth to Seasonal High Water Table (feet)	Acres	Percent
	Pits, made land, intermittent streams and lakes, ditches, water, etc.				3650	1.4
	Swamps	5W	Freq		5120	1.9
Aa	Alligator clay, level phase	3W	Rare	0.50 - 2.00	16,252	6.2
Ab	Alligator clay, gently sloping phase	3E	Rare	0.50 - 2.00	1625	0.6
Ac	Alligator silty clay, nearly level phase	3W	Rare	0.50 - 2.00	21,940	8.3
Ad	Alligator silty clay, gently sloping phase	3E	Rare	0.50 - 2.00	813	0.3
Ae	Alligator and Dowling clays (Sharkey)	5W	Freq	0.50 - 2.00	23,378	8.9
Ae	Alligator and Dowling clays (Sharkey)	5W	Freq	0.00 - 2.00	*	*
Ag	Alligator and Sharkey clays, nearly level phases	3W	Rare	0.50 - 2.00	14,632	5.5
Ag	Alligator and Sharkey clays, nearly level phases	3E	Rare	0.00 - 2.00	*	*
Ah	Alligator and Sharkey clays, gently sloping phases	3E	Rare	0.50 - 2.00	1620	0.6
Ah	Alligator and Sharkey clays, gently sloping phases	3E	Rare	0.00 - 2.00	*	*
Ak	Ark silt loam (Commerce)	2E	None	1.50 - 4.00	320	0.1
Ba	Beulah sandy loam, nearly level phases	2S	None	6.00 - 6.00	128	0.1
Bb	Beulah sandy loam, gently sloping phases	2S	None	6.00 - 6.00	382	0.1
Bc	Bosket sandy loam, nearly level phase (Dubbs)	1	None	6.00 - 6.00	1224	0.5
Bd	Bosket sandy loam, gently sloping phase (Dubbs)	2E	None	6.00 - 6.00	816	0.3
Be	Brittain silt loam, nearly level phase (Amagon)	3W	Rare	1.00 - 2.00	4575	1.7
Bg	Brittain silt loam, gently sloping phase (Amagon)	3W	Rare	1.00 - 2.00	220	0.1
Bh	Brittain silty clay loam, nearly level phase (Amagon)	3W	Rare	1.00 - 2.00	5630	2.1
Bk	Brittain silty clay loam, gently sloping phase (Amagon)	3W	Rare	1.00 - 2.00	231	0.1
Bm	Brittain soils-waverly soils, local alluvium phases (Amagon, Rosebloom)	3W	Rare	1.00 - 2.00	7604	2.9
Bm	Brittain soils-waverly soils, local alluvium phases (Amagon, Rosebloom)	3W	Occas	0.00 - 1.00	*	*
Ca	Clack loamy sand, nearly level phase (Bruno)	3S	Occas	4.00 - 6.00	30	<0.1
Cc	Clack sandy loam, nearly level phase (Bruno)	3S	Occas	4.00 - 6.00	60	<0.1
Ce	Clay and sand banks, sloping				192	0.1
Cg	Clay and sand banks, strongly sloping				128	0.1
Ch	Collins silt loam	1	Rare	2.00 - 5.00	2822	1.1
Ck	Collins silty clay loam (Arkabutla)	2W	Occas	1.00 - 1.50	58	<0.1
Cm	Collins-Falaya silt loams, nearly level phases (Collins, Waverly)	2W	Occas	2.00 - 5.00	4325	1.6
Cm	Collins-Falaya silt loams, nearly level phases (Collins, Waverly)	3W	Occas	0.50 - 1.00	*	*
Cn	Collins-Falaya silt loams, gently sloping phase (Collins, Waverly)	2W	Occas	2.00 - 5.00	125	0.1
Cn	Collins-Falaya silt loams, gently sloping phase (Collins, Waverly)	3W	Occas	0.50 - 1.00	*	*
Co	Collins soils and waverly soils, local alluvium phases	2W	Occas	2.00 - 5.00	550	0.2
Cp	Crowder sandy clay (Sharkey)	3E	Rare	0.00 - 2.00	2560	1.0
Da	Dowling clay and silty clay (Sharkey)	4W	Occas	0.00 - 2.00	36,860	14.0
Db	Dubbs fine sandy loam, nearly level phase	1	None	6.00 - 6.00	1955	0.7
Dc	Dubbs fine sandy loam, gently sloping phase	2E	None	6.00 - 6.00	105	<0.1
Dd	Dundee silty clay loam, gently sloping phase	1	None	6.00 - 6.00	978	0.4
Dd	Dubbs silty loam, nearly level phase	1	None	6.00 - 6.00	951	0.4
Dd	Dundee silty clay loam, gently sloping phase	2E	Rare	1.50 - 3.50	*	*
Dd	Dubbs silty loam, nearly level phase	2E	Rare	1.50 - 3.50	*	*
De	Dubbs silt loam, gently sloping phase	2E	None	6.00 - 6.00	52	<0.1

Dg	Dundee fine sandy loam, nearly level phase	2W	Rare	1.50 - 3.50	11,095	4.2
Dh	Dundee fine sandy loam, gently sloping phase	2E	Rare	1.50 - 3.50	634	0.2
Dk	Dundee silt loam, nearly level phase	2W	Rare	1.50 - 3.50	8576	3.3
Dm	Dundee silt loam, gently sloping phase	2E	Rare	1.50 - 3.50	317	0.1
Dn	Dundee silty clay loam, nearly level phase	2W	Rare	1.50 - 3.50	9827	3.7
Fa	Falaya silt loam (Waverly)	3W	Occas	0.50 - 1.00	1016	0.4
Fb	Falaya silty clay loam (Arkabutla)	2W	Occas	1.00 - 1.50	904	0.3
Fc	Forestdale silt loam, nearly level phase	3W	Rare	0.50 - 2.00	17,495	6.6
Fd	Forestdale silt loam, gently sloping phase	3W	Rare	0.50 - 2.00	921	0.3
Fe	Forestdale silty clay loam, nearly level phase	3W	Rare	0.50 - 2.00	25,743	9.8
Fg	Forestdale silty clay loam, gently sloping phase	3W	Rare	0.50 - 2.00	1881	0.7
Pa	Pearson silt loam, nearly level phase (Dubbs)	1	None	6.00 - 6.00	689	0.3
Pb	Pearson silt loam, gently sloping phase (Dubbs)	2E	None	6.00 - 6.00	31	<0.1
Pc	Pearson silty clay loam, nearly level phase (Dubbs)	1	None	6.00 - 6.00	547	0.2
Pd	Pearson silty clay loam, gently sloping phase (Dubbs)	2E	None	6.00 - 6.00	29	0.0
Pe	Pearsons very fine sandy loam, nearly level phase (Dubbs)	1	None	6.00 - 6.00	130	0.1
Pg	Pearsons very fine sandy loam, gently sloping phase (Dubbs)	2E	None	6.00 - 6.00	14	<0.1
Sb	Sand banks, strongly sloping				640	0.2
Sc	Sharkey silt loam, nearly level overwash phase	3E	Rare	0.00 - 2.00	190	0.1
Sd	Sharkey silty clay, nearly level phase	3E	Rare	0.00 - 2.00	13,720	5.2
Se	Sharkey silty clay, gently sloping phase	3E	Rare	0.00 - 2.00	430	0.2
Sg	Souva silt loam, nearly level phase (Sharkey)	3E	Rare	0.00 - 2.00	768	0.3
Sh	Souva silt loam, gently sloping phase (Sharkey)	3E	Rare	0.00 - 2.00	192	0.1
Ta	Tunica silty clay, nearly level phase	3W	Rare	1.50 - 3.00	2957	1.1
Tb	Tunica silty clay, gently sloping phase	3E	Rare	1.50 - 3.00	563	0.2
Tc	Tunica and Dundee soils, nearly level phase	3W	Rare	1.50 - 3.00	225	0.1
Tc	Tunica and Dundee soils, nearly level phase	2W	Rare	1.50 - 3.50	*	*
Td	Tunica and Dundee soils, gently sloping phases	3E	Rare	1.50 - 3.00	75	<0.1
Td	Tunica and Dundee soils, gently sloping phases	2E	Rare	1.50 - 3.50	*	*
Wa	Waverly soils, depressional phases (Rosebloom)	3W	Occas	0.00 - 1.00	2160	0.8
	Total				263,680	100.0

Source: USDA, Soil Conservation Service, State Conservationist, Jackson, MS. Figures were compiled in 1989, but based on the Quitman County Soil Survey, 1958, USDA Soil Conservation Service.

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USDA, Soil Conservation Service
Soil Series Map Unit Information

Sharkey County, Mississippi

Map Symbol	Soil Series Map Unit Name	Capability Class	Annual Flood	Range of Depth to Seasonal High Water Table (feet)	Acres	Percent
Aa	Alligator clay, 0 to 1/2 percent slopes	3W	Rare	0.50 - 2.00	6325	2.3
Ab	Alligator clay, 1/2 to 2 percent slopes	3W	Rare	0.50 - 2.00	25,100	9.0
Ac	Alligator clay, overflow, 0 to 2 percent slopes	5W	Freq	0.50 - 2.00	560	0.2
Ae	Alligator silty clay loam, 0 to 2 percent slopes	3W	Rare	0.50 - 2.00	1395	0.5
Bk	Bowdre silty clay, 0 to 2 percent slopes	2W	Rare	1.50 - 2.00	4330	1.6
Bp	Borrow Pits	8S	None		200	0.1
Ch	Commerce silt loam, 0 to 2 percent slopes	2E	Rare	1.50 - 4.00	6265	2.3
Cm	Commerce silt loam, moderately shallow, 0 to 2 percent slopes	2E	Rare	1.50 - 4.00	570	0.2
Cn	Commerce very fine sandy loam, 0 to 2 percent slopes	2E	Rare	1.50 - 4.00	*	*
Cn	Commerce silty clay loam, 0 to 2 percent slopes	2E	Rare	1.50 - 4.00	11,785	4.2
Cn	Commerce very fine sandy loam, 0 to 2 percent slopes	2E	Rare	1.50 - 4.00	19,050	6.8
Cn	Commerce silty clay loam, 0 to 2 percent slopes	2E	Rare	1.50 - 4.00	*	*
Cr	Commerce very fine sandy loam, 2 to 5 percent slopes	2E	Rare	1.50 - 4.00	*	*
Cr	Commerce silty clay loam, 2 to 5 percent slopes	2E	Rare	1.50 - 4.00	*	*
Cr	Commerce very fine sandy loam, 2 to 5 percent slopes	2E	Rare	1.50 - 4.00	450	0.2
Cr	Commerce silty clay loam, 2 to 5 percent slopes	2E	Rare	1.50 - 4.00	440	0.2
Cs	Commerce silty clay loam, moderately shallow, 0 to 2 percent slopes	2E	Rare	1.50 - 4.00	1115	0.4
Cs	Commerce very fine sandy loam, moderately shallow, 0 to 2 percent slopes	2E	Rare	1.50 - 4.00	985	0.3
Cs	Commerce silty clay loam, moderately shallow, 0 to 2 percent slopes	2E	Rare	1.50 - 4.00	*	*
Cs	Commerce very fine sandy loam, moderately shallow, 0 to 2 percent slopes	2E	Rare	1.50 - 4.00	*	*
Da	Dowling Clay (Sharkey)	4W	Occas	0.00 - 2.00	11,765	4.2
Db	Dowling Soils, (Sharkey)	4W	Occas	0.00 - 2.00	4700	1.7
De	Dundee Silt loam, 0 to 2 percent slopes	2W	Rare	1.50 - 3.50	2690	1.0
Df	Dundee Silt loam, 2 to 5 percent slopes	2E	Rare	1.50 - 3.50	655	0.2
Dk	Dundee silty clay Loam, 0 to 2 percent slopes	2W	Rare	1.50 - 3.50	515	0.2
Fa	Forestdale silt Loam, 0 to 2 percent slopes	3W	Rare	0.50 - 2.00	4635	1.7
Fc	Forestdale silt loam, 2 to 5 percent slopes	3W	Rare	0.50 - 2.00	395	0.1
Fd	Forestdale silty clay loam, 0 to 2 percent slopes	3W	Rare	0.50 - 2.00	9800	3.5
Fe	Forestdale silty clay loam, 2 to 5 percent slopes	3W	Rare	0.50 - 2.00	605	0.2
Mh	Mhoon silty clay, 0 to 2 percent slopes	2W	Rare	0.00 - 3.00	750	0.3
Ro	Robinsonville very fine sandy loam, 0 to 2 percent slopes	1	Rare	4.00 - 6.00	630	0.2
Sa	Sharkey clay, 0 to 1/2 percent slopes	3W	Rare	0.00 - 2.00	20,385	7.3
Sb	Sharkey clay, 1/2 to 2 percent slopes	3E	Rare	0.00 - 2.00	38,205	13.7
Sd	Sharkey clay, overflow, 0 to 2 percent slopes	5W	Freq	0.00 - 2.00	1410	0.5
Se	Sharkey silt loam, overwash, 0 to 2 percent slopes	3E	Rare	0.00 - 2.00	300	0.1
Sk	Sharkey silty clay loam, 0 to 2 percent slopes	3E	Rare	0.00 - 2.00	770	0.3
Sr	Sharkey, Alligator, and Dowling soils (Sharkey, Alligator, Sharkey)	5W	Freq	0.00 - 2.00	95,000	34.0
Sr	Sharkey, Alligator, and Dowling soils (Sharkey, Alligator, Sharkey)	5W	Freq	0.50 - 2.00	*	*

Sr	Sharkey, Alligator, and Dowling Soils (Sharkey, Alligator, Sharkey)	5W	Freq	0.00 - 2.00	*	*
Ta	Tunica clay, 0 to 2 percent slopes	3W	Rare	1.50 - 3.00	5415	1.9
Tc	Tunica silty clay loam, 0 to 2 percent slopes	3W	Rare	1.50 - 3.00	520	0.2
	Large bodies of water (more than 40 acres)				900	0.3
	Small bodies of water (less than 40 acres)				425	0.1
	Total				279,040	100.0

Source: USDA, Soil Conservation Service, State Conservationist, Jackson, MS. Figures were compiled in 1989, but based on the Sharkey County Soil Survey, 1962, USDA Soil Conservation Service.

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USDA, Soil Conservation Service
Soil Series Map Unit Information

Sunflower County, Mississippi

Map Symbol	Soil Series Map Unit Name	Capability Class	Annual Flood	Range of Depth to Seasonal High Water Table (feet)	Acres	Percent
	Other areas, not mapped in detail				12,965	2.9
Aa	Alligator clay, level phase	3W	Rare	0.50 - 2.00	20,651	4.7
Ab	Alligator clay, nearly level phase	3W	Rare	0.50 - 2.00	51,175	11.5
Ac	Alligator clay, gently sloping phase	3E	Rare	0.50 - 2.00	2351	0.5
Ad	Alligator clay, sloping phase	3E	Rare	0.50 - 2.00	120	<0.1
Ae	Alligator silty clay, level phase	3W	Rare	0.50 - 2.00	2216	0.5
Ag	Alligator silty clay, nearly level phase	3W	Rare	0.50 - 2.00	31,885	7.2
Ah	Alligator silty clay, gently sloping phase	3E	Rare	0.50 - 2.00	1550	0.3
Ak	Alligator silty clay loam, level phase	3W	Rare	0.50 - 2.00	210	0.1
Am	Alligator silty clay loam, nearly level phase	3W	Rare	0.50 - 2.00	3978	0.9
Ba	Beulah fine sandy loam, nearly level phase	2S	None	6.00 - 6.00	266	0.1
Bb	Beulah fine sandy loam, gently sloping phase	2S	None	6.00 - 6.00	112	<0.1
Bc	Bosket very fine sandy loam, nearly level phase (Dubbs)	1	None	6.00 - 6.00	897	0.2
Bd	Bosket very fine sandy loam, gently sloping phase (Dubbs)	3E	None	6.00 - 6.00	216	0.1
Be	Brittain silt loam, nearly level phase (Amagon)	3W	Rare	1.00 - 2.00	922	0.2
Da	Dexter silt loam, nearly level phase (Dubbs)	1	None	6.00 - 6.00	429	0.1
Db	Dowling clay (Sharkey)	4W	Occas	0.00 - 2.00	49,117	11.1
Dc	Dowling soils, overwash phases (Sharkey)	4W	Occas	0.00 - 2.00	40,101	9.0
Dd	Dubbs silt loam, nearly level phase	1	None	6.00 - 6.00	2899	0.7
De	Dubbs silt loam, gently sloping phase	3E	None	6.00 - 6.00	174	<0.1
Dg	Dubbs very fine sandy loam, nearly level phase	1	None	6.00 - 6.00	9502	2.1
Dh	Dubbs very fine sandy loam, gently sloping phase	3E	None	6.00 - 6.00	613	0.1
Dk	Dundee silt loam, nearly level phase	2W	Rare	1.50 - 3.50	42,885	9.7
Dm	Dundee silt loam, gently sloping phase	3E	Rare	1.50 - 3.50	2662	0.6
Dn	Dundee silt loam, sloping phase	3E	Rare	1.50 - 3.50	133	<0.1
Do	Dundee silty clay loam, nearly level phase	2W	Rare	1.50 - 3.50	5143	1.2
Dp	Dundee silty clay loam, gently sloping phase	3E	Rare	1.50 - 3.50	1650	0.4
Dr	Dundee silty clay loam, sloping phase	3E	Rare	1.50 - 3.50	245	0.1
Ds	Dundee very fine sandy loam, nearly level phase	2W	Rare	1.50 - 3.50	20,573	4.6
Dt	Dundee very fine sandy loam, gently sloping phase	3E	Rare	1.50 - 3.50	1815	0.4
Du	Dundee very fine sandy loam, sloping phase	3E	Rare	1.50 - 3.50	240	0.1
Dv	Dundee-Clack soils, nearly level phases (Dundee, Bruno)	2W	Rare	1.50 - 3.50	522	0.1
Dv	Dundee-Clack soils, nearly level phases (Dundee, Bruno)	3S	Rare	4.00 - 6.00	*	*
Dw	Dundee-Clack soils, gently sloping phases (Dundee, Bruno)	3E	Rare	1.50 - 3.50	938	0.2
Dw	Dundee-Clack soils, gently sloping phases (Dundee, Bruno)	3S	Rare	4.00 - 6.00	*	*
Fa	Forestdale silt loam, level phase	3W	Rare	0.50 - 2.00	1251	0.3
Fb	Forestdale silt loam, nearly level phase	3W	Rare	0.50 - 2.00	55,942	12.6
Fc	Forestdale silt loam, gently sloping phase	3W	Rare	0.50 - 2.00	1685	0.4
Fd	Forestdale silt loam, sloping phase	3W	Rare	0.50 - 2.00	138	<0.1
Fe	Forestdale silty clay, level phase	3W	Rare	0.50 - 2.00	92	<0.1
Fg	Forestdale silty clay, nearly level phase	3W	Rare	0.50 - 2.00	8078	1.8
Fh	Forestdale silty clay, gently sloping phase	3W	Rare	0.50 - 2.00	1133	0.3
Fk	Forestdale silty clay loam, level phase	3W	Rare	0.50 - 2.00	630	0.1
Fm	Forestdale silty clay loam, nearly level phase	3W	Rare	0.50 - 2.00	40,467	9.1
Fn	Forestdale silty clay loam, gently sloping phase	3W	Rare	0.50 - 2.00	2057	0.5
Fo	Forestdale silty clay loam, sloping phase	3W	Rare	0.50 - 2.00	249	0.1
Fp	Forestdale very fine sandy loam, level phase	3W	Rare	0.50 - 2.00	6	<0.1
Fr	Forestdale very fine sandy loam, nearly level phase	3W	Rare	0.50 - 2.00	2055	0.5
Fs	Forestdale very fine sandy loam, gently sloping phase	3W	Rare	0.50 - 2.00	209	0.1

Ia	Iberia clay (Sharkey)	3W	Rare	0.00 - 2.00	432	0.1
Pa	Pearson silt loam, nearly level phase (Dundee)	2W	Rare	1.50 - 3.50	1099	0.3
Pb	Pearson silt loam, gently sloping phase (Dundee)	3E	Rare	1.50 - 3.50	42	<0.1
Sa	Sharkey clay, level phase	3W	Rare	0.00 - 2.00	4487	1.0
Sb	Sharkey clay, nearly level phase	3E	Rare	0.00 - 2.00	11,517	2.6
Sc	Sharkey clay, gently sloping phase	3E	Rare	0.00 - 2.00	638	0.1
Sd	Sharkey clay, sloping phase	3E	Rare	0.00 - 2.00	34	<0.1
Se	Sharkey silty clay loam, level phase	3W	Rare	0.00 - 2.00	97	<0.1
Sg	Sharkey silty clay loam, nearly level phase	3E	Rare	0.00 - 2.00	195	<0.1
Sh	Sharkey-Clack soils, nearly level phases (Sharkey, Bruno)	3E	Rare	0.00 - 2.00	284	0.1
Sh	Sharkey-Clack soils, nearly level phases (Sharkey, Bruno)	3S	Rare	4.00 - 2.00	*	*
Sk	Sharkey-Clack soils, gently sloping phases (Sharkey, Bruno)	3E	Rare	0.00 - 2.00	878	0.2
Sk	Sharkey-Clack soils, gently sloping phases (Sharkey, Bruno)	3S	Rare	4.00 - 6.00	*	*
Sm	Souva soils (Amagon)	3W	Occas	1.00 - 2.00	320	0.1
Ta	Tunica silty clay, nearly level phase	3W	Rare	1.50 - 3.00	270	0.1
Wa	Waverly silt loam, local alluvium phase (Rosebloom)	3W	Occas	0.00 - 1.00	80	<0.1
	Total				443,520	100.0

Source: USDA, Soil Conservation Service, State Conservationist, Jackson, MS. Figures were compiled in 1989, but based on the Sunflower County Soil Survey, 1959, USDA Soil Conservation Service.

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USDA, Soil Conservation Service
Soil Series Map Unit Information

Tallahatchie County, Mississippi

Map Symbol	Soil Series Map Unit Name	Capability Class	Annual Flood	Range of Depth to Seasonal High Water Table (feet)	Acres	Percent
	Miscellaneous				12,420	3.0
AcA	Alligator clay, 0 to 2 percent slopes	3W	Rare	0.50 - 2.00	68,375	16.6
Ad	Alligator clay, depressional	4W	Occas	0.50 - 2.00	38,060	9.2
AsA	Alligator silty clay loam, 0 to 2 percent slopes	3W	Rare	0.50 - 2.00	6100	1.5
Ca	Calhoun silt loam	3W	None	0.00 - 2.00	300	0.1
Cb	Calhoun-Bonn complex	3W	None	0.00 - 2.00	3000	0.7
Cb	Calhoun-Bonn complex	4S	None	0.00 - 2.00	*	*
ClA	Calloway silt loam, 0 to 3 percent slopes	2E	None	1.00 - 2.00	895	0.2
CmA	Cascilla silt loam, 0 to 3 percent slopes	1	Rare	6.00 - 6.00	550	0.1
Cn	Collins silt loam	2W	Occas	2.00 - 5.00	19,895	4.8
Co	Collins silt loam, clayey subsoil variant	2W	Occas	2.00 - 5.00	380	0.1
Cs	Crevasse and Bruno soils	4S	Rare	3.50 - 6.00	410	0.1
Cs	Crevasse and Bruno soils	3S	Rare	4.00 - 6.00	*	*
DbA	Dubbs very fine sandy loam, 0 to 2 percent slopes	1	None	6.00 - 6.00	25,960	6.3
DbB	Dundee silt loam, 2 to 5 percent slopes	2E	None	6.00 - 6.00	17,000	4.1
DbB	Dubbs very fine sandy loam, 2 to 5 percent slopes	2E	None	6.00 - 6.00	*	*
DbB	Dundee silt loam, 2 to 5 percent slopes	2E	Rare	1.50 - 3.50	3990	1.0
DbB	Dubbs very fine sandy loam, 2 to 5 percent slopes	2E	Rare	1.50 - 3.50	*	*
DdA	Dundee silt loam, 0 to 2 percent slopes	2W	Rare	1.50 - 3.50	37,075	9.0
DeA	Dundee silty clay loam, 0 to 2 percent slopes	2W	Rare	1.50 - 3.50	5900	1.4
DeB	Dundee silty clay loam, 2 to 5 percent slopes	2E	Rare	1.50 - 3.50	2000	0.5
DnC	Dundee soils, 5 to 8 percent slopes	3E	Rare	1.50 - 3.50	1260	0.3
DtA	Dundee and Tensas silt loams, 0 to 3 percent slopes	2W	Rare	1.50 - 3.50	18,515	4.5
DtA	Dundee and Tensas silt loams, 0 to 3 percent slopes	3E	Rare	1.00 - 3.00	*	*
FE	Falaya-Waverly association	4W	Freq	1.00 - 2.00	5720	1.4
FE	Falaya-Waverly association	5W	Freq	0.50 - 1.00	*	*
Fa	Falaya silt loam	2W	Occas	1.00 - 2.00	10,125	2.5
Fo	Forestdale silt loam, depressional	4w	Occas	0.50 - 2.00	700	0.2
Fr	Forestdale silty clay loam, 0 to 3 percent slopes	3W	Rare	0.50 - 2.00	17,580	4.3
GrA	Grenada silt loam, 0 to 2 percent slopes	2E	None	1.50 - 2.50	985	0.2
GrB2	Grenada silt loam, 2 to 5 percent slopes, eroded	2E	None	1.50 - 2.50	1520	0.4
GrC3	Grenada silt loam, 2 to 8 percent slopes, severely eroded	4E	None	1.50 - 2.50	400	0.1
GuF	Gullied land-Memphis complex, 8 to 40 percent slopes	7E	None	6.00 - 6.00	19,285	4.7
GuF	Gullied land-Memphis complex, 8 to 40 percent slopes	6E	None	6.00 - 6.00	*	*
LeA	Leverett silt loam, 0 to 2 percent slopes	1	None	2.50 - 3.00	890	0.2
LeB	Leverett silt loam, 2 to 5 percent slopes	2E	None	2.50 - 3.00	480	0.1
LoA	Loring silt loam, 0 to 2 percent slopes	2W	None	2.00 - 3.00	550	0.1
LoB2	Loring silt loam, 2 to 5 percent slopes, eroded	2E	None	2.00 - 3.00	2240	0.5
LoC2	Loring silt loam, 5 to 8 percent slopes, eroded	3E	None	2.00 - 3.00	3725	0.9
LoD2	Loring silt loam, 8 to 12 percent slopes, eroded	4E	None	2.00 - 3.00	2160	0.5
MeA	Memphis silt loam, 0 to 2 percent slopes	1	None	6.00 - 6.00	280	0.1
MeB2	Memphis silt loam, 2 to 5 percent slopes, eroded	2E	None	6.00 - 6.00	1230	0.3
MeC2	Memphis silt loam, 5 to 8 percent slopes, eroded	3E	None	6.00 - 6.00	4820	1.2
MeD2	Memphis silt loam, 8 to 12 percent slopes, eroded	4E	None	6.00 - 6.00	1380	0.3
MeD3	Memphis silt loam, 5 to 12 percent slopes, severely eroded	4E	None	6.00 - 6.00	9485	2.3
MeE	Memphis silt loam, 12 to 17 percent slopes	6E	None	6.00 - 6.00	4375	1.1
MeE3	Memphis silt loam, 12 to 17 percent slopes, severely eroded	6E	None	6.00 - 6.00	7230	1.8
MeF	Memphis silt loam, 17 to 40 percent slopes	7E	None	6.00 - 6.00	24,085	5.8
MeF3	Memphis silt loam, 17 to 40 percent slopes, severely eroded	7E	None	6.00 - 6.00	7425	1.8
MnF	Memphis-Natchez complex, 17 to 40 percent slopes	7E	None	6.00 - 6.00	3540	0.9

MnF	Memphis-Natchez complex, 17 to 40 percent slopes	7E	None	6.00 - 6.00	•	•
Ro	Rosebloom silt loam	3W	Occas	0.00 - 1.00	2300	0.6
Sh	Sharkey Clay	3E	Rare	0.00 - 2.00	1000	0.2
TpA	Tippo silt loam, 0 to 2 percent slopes	2W	None	1.50 - 2.50	1240	0.3
TuA	Tutwiler very fine sandy loam, 0 to 3 percent slopes	1	None	6.00 - 6.00	3295	0.8
TwB	Tutwiler-Bruno complex, 0 to 5 percent slopes	2E	None	6.00 - 6.00	1690	0.4
TwB	Tutwiler-Bruno complex, 0 to 5 percent slopes	3S	Occas	4.00 - 6.00	•	•
Vc	Vicksburg silt loam	2W	Occas	2.50 - 4.00	3430	0.8
Vk	Vicksburg and Bruno soils	2W	Occas	2.50 - 4.00	2720	0.7
Vk	Vicksburg and Bruno soils	3S	Occas	4.00 - 6.00	•	•
Wv	Waverly silt loam	3W	Occas	0.50 - 1.00	4190	1.0
	Total				412,160	100.0

Source: USDA, Soil Conservation Service, State Conservationist, Jackson, MS. Figures were compiled in 1989, but based on the Tallahatchie County Soil Survey, 1970, USDA Soil Conservation Service.

• Denotes soils complexes that occur in such an intricate pattern that it was not practical to map them separately. Acreage and proportional extent figures for these soils are listed as a lump sum at the first listing of the complex.

USDA, Soil Conservation Service
Soil Series Map Unit Information

Tate County, Mississippi

Map Symbol	Soil Series Map Unit Name	Capability Class	Annual Flood	Range of Depth to Seasonal High Water Table (feet)	Acres	Percent
AS	Alligator-Dowling association (Alligator, Alligator)	5W	Freq	0.50 - 2.00	3251	1.3
AS	Alligator-Dowling association (Alligator, Alligator)	5W	Freq	0.50 - 2.00	*	*
Aa	Adler silt loam, local alluvium	2W	Occas	2.00 - 3.00	375	0.1
Ag	Adler and Morganfield silt loams	2W	Occas	2.00 - 3.00	740	0.3
Ag	Adler and Morganfield silt loams	2W	Occas	3.00 - 4.00	*	*
Am	Adler and Morganfield silt loams, local alluvium	2W	Occas	2.00 - 3.00	980	0.4
Am	Adler and Morganfield silt loams, local alluvium	2W	Occas	3.00 - 4.00	*	*
Ao	Alligator clay	3W	Rare	0.50 - 2.00	1289	0.5
Ar	Alligator silty clay loam	3W	Rare	0.50 - 2.00	781	0.3
At	Alluvial land				2822	1.1
Au	Arkabutla silty clay loam	4W	Freq	1.00 - 1.50	2150	0.9
CaA	Calloway silt loam, 0 to 2 percent slopes	2E	None	1.00 - 2.00	1052	0.4
CaB	Calloway silt loam, 2 to 5 percent slopes	3E	None	1.00 - 2.00	1202	0.5
CaB2	Calloway silt loam, 2 to 5 percent slopes, eroded	3E	None	1.00 - 2.00	1787	0.7
Cm	Collins silt loam	2W	Occas	2.00 - 5.00	29,905	12.2
Co	Collins silt loam, local alluvium	2W	Occas	2.00 - 5.00	8099	3.3
Dc	Dowling clay (Alligator)	4W	Occas	0.50 - 2.00	598	0.2
DnA	Dundee loam, 0 to 2 percent slopes	2W	Rare	1.50 - 3.50	359	0.1
DsA	Dundee silty clay loam, 0 to 2 percent slopes	2W	Rare	1.50 - 3.50	129	0.1
Fa	Falaya silt loam	2W	Occas	1.00 - 2.00	27,320	11.2
GrC	Grenada silt loam, 5 to 8 percent slopes	3E	None	1.50 - 2.50	427	0.2
GrC2	Grenada silt loam, 5 to 8 percent slopes, eroded	3E	None	1.50 - 2.50	3015	1.2
GrC3	Grenada silt loam, 5 to 8 percent slopes, severely eroded	4E	None	1.50 - 2.50	15,702	6.4
GrD	Grenada silt loam, 8 to 12 percent slopes (Loring)	4E	None	2.00 - 3.00	880	0.4
GrD?	Grenada silt loam, 8 to 12 percent slopes, eroded (Loring)	4E	None	2.00 - 3.00	675	0.3
GrD3	Grenada silt loam, 8 to 12 percent slopes, severely eroded (Loring)	6E	None	2.00 - 3.00	8616	3.5
Gs	Grenada-gullied land complex (Loring)	4E	None	2.00 - 3.00	20,942	8.5
Gs	Grenada-gullied land complex (Loring)	7E	None	6.00 - 6.00	*	*
Gt	Gullied land, sandy	7E	None	6.00 - 6.00	10,050	4.1
Gu	Gullied land, silty	7E	None	6.00 - 6.00	21,370	8.7
He	Henry silt loam	3W	None	0.50 - 1.50	646	0.3
LgA	Loring-Grenada silt loams, 0 to 2 percent slopes	2W	None	2.00 - 3.00	265	0.1
LgA	Loring-Grenada silt loams, 0 to 2 percent slopes	2E	None	1.50 - 2.50	*	*
LgB	Loring-Grenada silt loams, 2 to 5 percent slopes	2E	None	2.00 - 3.00	740	0.3
LgB	Loring-Grenada silt loams, 2 to 5 percent slopes	2E	None	1.50 - 2.50	*	*
LgB2	Loring-Grenada silt loams, 2 to 5 percent slopes, eroded	2E	None	2.00 - 3.00	14,022	5.7
LgB2	Loring-Grenada silt loams, 2 to 5 percent slopes, eroded	2E	None	1.50 - 2.50	*	*
LgB3	Loring-Grenada silt loams, 2 to 5 percent slopes, severely eroded	3E	None	2.00 - 3.00	4139	1.7
LgB3	Loring-Grenada silt loams, 2 to 5 percent slopes, severely eroded	3E	None	1.50 - 2.50	*	*
Ma	Made land				337	0.1
MeB2	Memphis silt loam, 2 to 5 percent slopes, eroded	2E	None	6.00 - 6.00	5321	2.2
MeB3	Memphis silt loam, 2 to 5 percent slopes, severely eroded	3E	None	6.00 - 6.00	1362	0.6
MeC2	Memphis silt loam, 5 to 8 percent slopes, eroded	3E	None	6.00 - 6.00	963	0.4
MeC3	Memphis silt loam, 5 to 8 percent slopes, severely eroded	4E	None	6.00 - 6.00	8374	3.4
MeD2	Memphis silt loam, 8 to 12 percent slopes, eroded	4E	None	6.00 - 6.00	222	0.1
MeD3	Memphis silt loam, 8 to 12 percent slopes, severely eroded	6E	None	6.00 - 6.00	3770	1.5
MeE2	Memphis silt loam, 12 to 17 percent slopes, eroded	6E	None	6.00 - 6.00	2240	0.9

MeE3	Memphis silt loam, 12 to 17 percent slopes, severely eroded	6E	None	6.00 - 6.00	4010	1.6
MeF	Memphis silt loam, 17 to 45 percent slopes	7E	None	6.00 - 6.00	5052	2.1
MeF3	Memphis silt loam, 17 to 45 percent slopes, severely eroded	7E	None	6.00 - 6.00	1198	0.5
Mg	Memphis-gullied land complex	4E	None	6.00 - 6.00	11,322	4.6
Mg	Memphis-gullied land complex	7E	None	6.00 - 6.00	*	*
NmE	Natchez-Memphis silt loams, 12 to 17 percent slopes	6E	None	6.00 - 6.00	335	0.1
NmE	Natchez-Memphis silt loams, 12 to 17 percent slopes	6E	None	6.00 - 6.00	*	*
NmF	Natchez-Memphis silt loams, 17 to 50 percent slopes	7E	None	6.00 - 6.00	2110	0.9
NmF	Natchez-Memphis silt loams, 17 to 50 percent slopes	7E	None	6.00 - 6.00	*	*
PoD3	Providence silt loams, 8 to 12 percent slopes, severely eroded	6E	None	1.50 - 3.00	537	0.2
PrE	Providence-Ruston complex, 12 to 17 percent slopes (Providence, Smithdale)		None	1.50 - 3.00	3230	1.3
PrE	Providence-Ruston complex, 12 to 17 percent slopes (Providence, Smithdale)	6E	None	6.00 - 6.00	*	*
PrE3	Providence-Ruston complex, 12 to 17 percent slopes, severely eroded (Providence, Smithdale)	7E	None	1.50 - 3.00	2860	1.2
PrE3	Providence-Ruston complex, 12 to 17 percent slopes, severely eroded (Providence, Smithdale)	7E	None	6.00 - 6.00	*	*
RpF	Ruston-Providence complex, 17 to 50 percent slopes (Smithdale, Providence)	7E	None	6.00 - 6.00	4487	1.8
RpF	Ruston-Providence complex, 17 to 50 percent slopes (Smithdale, Providence)		None	1.50 - 3.00	*	*
Sm	Smoothed silt land				1700	0.7
Wk	Wakeland silt loam (Convent)	3W	Occas	1.50 - 4.00	320	0.1
Wv	Waverly silt loam	5W	Freq	0.50 - 1.00	1042	0.4
	Total				245,120	100.0

Source: USDA, Soil Conservation Service, State Conservationist, Jackson, MS. Figures were compiled in 1989, but based on the Tate County Soil Survey, 1967, USDA Soil Conservation Service.

* Denotes soils complexes that occur in such an intricate pattern that it was not practical to map them separately. Acreage and proportional extent figures for these soils are listed as a lump sum at the first listing of the complex.

USDA, Soil Conservation Service
Soil Series Map Unit Information

Tunica County, Mississippi

Map Symbol	Soil Series Map Unit Name	Capability Class	Annual Flood	Range of Depth to Seasonal High Water Table (feet)	Acres	Percent
	Levee and river not mapped				33,280	11.3
Aa	Alligator clay, level phase	3W	Rare	0.50 - 2.00	3200	1.1
Ab	Alligator clay, undulating phase	3E	Rare	0.50 - 2.00	640	0.2
Ac	Alluvial soils		Freq		1080	0.4
Ad	Alva and Eupora soils, (Tutwiler)	1	None	6.00 - 6.00	320	0.1
Ad	Alva and Eupora soils, (Tutwiler)	1	None	6.00 - 6.00	*	*
Ae	Ark soils, (Commerce)	2E	Rare	1.50 - 4.00	1920	0.7
Ba	Bosket sandy loam, level phase (Dubbs)	1	None	6.00 - 6.00	3200	1.1
Bb	Bosket sandy loam, undulating phase (Dubbs)	2E	None	6.00 - 6.00	2560	0.9
Bc	Bosket very fine sandy loam, level phase (Dubbs)	1	None	6.00 - 6.00	10,880	3.7
Bd	Bosket very fine sandy loam, undulating phase (Dubbs)	3E	None	6.00 - 6.00	1920	0.7
Be	Bowdre soils	2W	Rare	1.50 - 2.00	960	0.3
Ca	Clack loamy sand, level phase (Bruno)	3S	Occas	4.00 - 6.00	400	0.1
Cb	Clack loamy sand, undulating phase (Bruno)	3S	Occas	4.00 - 6.00	1840	0.6
Cc	Clay and sand banks, gently sloping				2240	0.8
Cd	Clay and sand banks, sloping				960	0.3
Ce	Clay soils (unclassified)				39,253	13.4
Cf	Collins silt loam (Adler)	1	Rare	2.00 - 3.00	960	0.3
Cg	Commerce silt loam and very fine sandy loam (Morganfield)	1	Rare	3.00 - 4.00	4480	1.5
Ch	Commerce silt loam, shallow phase (Adler)	1	Rare	2.00 - 3.00	320	0.1
Ck	Crevasse sandy loam, level phase (Bruno)	3S	Occas	4.00 - 6.00	100	<0.1
Cl	Crevasse sandy loam, undulating (Bruno)	3S	Occas	4.00 - 6.00	220	0.1
Da	Dowling silt loam, and clay loam (Sharkey)	4W	Occas	0.00 - 2.00	1280	0.4
Db	Dowling soils (Sharkey)	4W	Occas	0.00 - 2.00	2560	0.9
Dc	Dubbs silt loam and very fine sandy loam, level phases	1	None	6.00 - 6.00	1920	0.7
Dd	Dubbs silt loam and very fine sandy loam, undulating phases	2E	None	6.00 - 6.00	640	0.2
De	Dubbs very fine sandy loam, level phase	1	None	6.00 - 6.00	2880	1.0
Df	Dubbs very fine sandy loam, undulating phase	2E	None	6.00 - 6.00	960	0.3
Dg	Dundee silt loam and very fine sandy loam, level phase	2W	Rare	1.50 - 3.50	10,240	3.5
Dh	Dundee silt loam, very fine sandy loam, undulating phases	2E	Rare	1.50 - 3.50	2560	0.9
Di	Dundee silt loam, undulating phase	2E	Rare	1.50 - 3.50	1600	0.6
Dk	Dundee silt loam, level phase	2W	Rare	1.50 - 3.50	5280	1.8
Dm	Dundee silty clay loam, level phase (Forestdale)	3W	Rare	0.50 - 2.00	2560	0.9
Dn	Dundee silty clay loam, undulating phase (Forestdale)	3W	Rare	0.50 - 2.00	2880	1.0
Do	Dundee very fine sandy loam, level phase	2W	Rare	1.50 - 3.50	480	0.2
Fa	Forestdale silt loam, level phase	3W	Rare	0.50 - 2.00	3840	1.3
Fb	Forestdale silt loam, undulating phase	3W	Rare	0.50 - 2.00	160	0.1
Fc	Forestdale silty clay loam-clay, level phases	3W	Rare	0.50 - 2.00	5280	1.8
Fd	Forestdale silty clay loam-clay undulating phases	3W	Rare	0.50 - 2.00	4160	1.4
Ma	Mhoon and Sharkey soils, (Commerce, Sharkey)	2E	Rare	1.50 - 4.00	700	0.2
Ma	Mhoon and Sharkey soils, (Commerce, Sharkey)	3E	Rare	0.00 - 2.00	*	*
Mb	Mhoon silt loam (Commerce)	2E	Rare	1.50 - 4.00	640	0.2
Ra	Riverwash (Crevasse)	5W	Freq	3.50 - 6.00	200	0.1
Rb	Robinsonville silt loam and very fine sandy loam	1	Rare	4.00 - 6.00	1920	0.7
Sa	Sand banks, sloping				320	0.1
Sb	Sharkey-Alligator clays, level phases	3E	Rare	0.00 - 2.00	47,434	16.2
Sb	Sharkey-Alligator clays, level phases	3W	Rare	0.50 - 2.00	*	*
Sc	Sharkey and Dowling clays (Sharkey)	4W	Occas	0.00 - 2.00	45,153	15.4
Sc	Sharkey and Dowling clays (Sharkey)	4W	Occas	0.00 - 2.00	*	*
Sd	Sharkey clay, undulating phase	3E	Rare	0.00 - 2.00	5120	1.8

Sf	Sharkey silty clay loam, level overwash phase	3E	Rare	0.00 - 2.00	400	0.1
Sg	Sharkey silty clay loam, undulating overwash phase	3E	Rare	0.00 - 2.00	300	0.1
Sh	Souva silt loam, gently sloping phase (Sharkey)	4W	Occas	0.00 - 2.00	1600	0.6
Sk	Souva silt loam, level phase (Sharkey)	4W	Occas	0.00 - 2.00	9280	3.2
Ta	Tunica and Dundee soils, level phases	3W	Rare	1.50 - 3.00	1600	0.6
Ta	Tunica and Dundee soils, level phases	2W	Rare	1.50 - 3.50	*	*
Tb	Tunica and Dundee soils, undulating phases	3E	Rare	1.50 - 3.00	160	0.1
Tb	Tunica and Dundee soils, undulating phases	2E	Rare	1.50 - 3.50	*	*
Tc	Tunica clay and silty clay, level phases	3W	Rare	1.50 - 3.00	8960	3.1
Td	Tunica clay and silty clay, undulating phases	3E	Rare	1.50 - 3.00	7520	2.6
Te	Tunica, Commerce, and Sharkey soils	5W	Freq	1.50 - 3.00	1800	0.6
Te	Tunica, Commerce, and Sharkey soils	5W	Freq	1.50 - 4.00	*	*
Te	Tunica, Commerce, and Sharkey soils	5W	Freq	0.00 - 2.00	*	*
	Total				293,120	100.0

Source: USDA, Soil Conservation Service, State Conservationist, Jackson, MS. Figures were compiled in 1989, but based on the Tunica County Soil Survey, 1956, USDA Soil Conservation Service.

* Denotes soils complexes that occur in such an intricate pattern that it was not practical to map them separately. Acreage and proportional extent figures for these soils are listed as a lump sum at the first listing of the complex.

USDA, Soil Conservation Service
Soil Series Map Unit Information

Warren County, Mississippi

Map Symbol	Soil Series Map Unit Name	Capability Class	Annual Flood	Range of Depth to Seasonal High Water Table (feet)	Acres	Percent
Ad	Adler silt loam	2W	Occas	2.00 - 3.00	22,030	6.1
Am	Adler and Morganfield silt loams, local alluvium	2W	Occas	2.00 - 3.00	2480	0.7
Am	Adler and Morganfield silt loams, local alluvium	2W	Occas	3.00 - 4.00	•	•
Ar	Alligator clay	3W	Rare	0.50 - 2.00	2410	0.7
Bo	Bowdre silty clay	2W	Rare	1.50 - 2.00	775	0.2
Ca	Calloway silt loam	2E	None	1.00 - 2.00	950	0.3
Ci	Collins silt loam	2W	Occas	2.00 - 5.00	830	0.2
Cm	Collins silt loam, local alluvium	2W	Occas	2.00 - 5.00	700	0.2
Cn	Commerce silt loam	2E	Rare	1.50 - 4.00	3135	0.9
Co	Commerce silty clay loam	2E	Rare	1.50 - 4.00	8480	2.3
Cp	Commerce very fine sandy loam	2E	Rare	1.50 - 4.00	11,925	3.3
CrC	Commerce, Robinsonville, and Crevasse soils (Commerce, Robinsonville, Bruno)	5W	Freq	1.50 - 4.00	43,080	11.9
CrC	Commerce, Robinsonville, and Crevasse soils (Commerce, Robinsonville, Bruno)	4W	Freq	4.00 - 6.00	•	•
CrC	Commerce, Robinsonville, and Crevasse soils (Commerce, Robinsonville, Bruno)	5W	Freq	4.00 - 6.00	•	•
Cy	Crevasse fine sandy loam (Bruno)	3S	Occas	4.00 - 6.00	1315	0.4
Do	Dowling clay (Sharkey)	5W	Freq	0.00 - 2.00	7345	2.0
Fa	Falaya silt loam (Collins)	2W	Occas	2.00 - 5.00	11,340	3.1
Fi	Falaya silt loam, local alluvium (Collins)	2W	Occas	2.00 - 5.00	2970	0.8
GrA	Grenada silt loam, 0 to 2 percent slopes	2E	None	1.50 - 2.50	615	0.2
GrB	Grenada silt loam, 2 to 5 percent slopes	2E	None	1.50 - 2.50	395	0.1
GrB2	Grenada silt loam, 2 to 5 percent slopes, eroded	2E	None	1.50 - 2.50	425	0.1
GrC3	Grenada silt loam, 5 to 8 percent slopes, severely eroded	4E	None	1.50 - 2.50	215	0.1
Gu	Gullied land	7E	None	6.00 - 6.00	24,095	6.7
Hn	Henry silt loam	3W	None	0.50 - 1.50	400	0.1
MeA	Memphis silt loam, 0 to 2 percent slopes	1	None	6.00 - 6.00	2790	0.8
MeB	Memphis silt loam, 2 to 5 percent slopes	2E	None	6.00 - 6.00	1115	0.3
MeB2	Memphis silt loam, 2 to 5 percent slopes, eroded	2E	None	6.00 - 6.00	2260	0.6
MeB3	Memphis silt loam, 2 to 5 percent slopes, severely eroded	2E	None	6.00 - 6.00	930	0.3
MeC2	Memphis silt loam, 5 to 8 percent slopes, eroded	3E	None	6.00 - 6.00	700	0.2
MeC3	Memphis silt loam, 5 to 8 percent slopes, severely eroded	4E	None	6.00 - 6.00	7915	2.2
MiA	Memphis and loring silt loams, 0 to 2 percent slopes	1	None	6.00 - 6.00	320	0.1
MiA	Memphis and loring silt loams, 0 to 2 percent slopes	2W	None	2.00 - 3.00	•	•
MiB	Memphis and loring silt loams, 2 to 5 percent slopes	2E	None	6.00 - 6.00	505	0.1
MiB	Memphis and loring silt loams, 2 to 5 percent slopes	2E	None	2.00 - 3.00	•	•
MiB2	Memphis and loring silt loams, 2 to 5 percent slopes, eroded	2E	None	6.00 - 6.00	3690	1.0
MiB2	Memphis and loring silt loams, 2 to 5 percent slopes, eroded	2E	None	2.00 - 3.00	•	•
MiB3	Memphis and loring silt loams, 2 to 5 percent slopes, severe eroded	3E	None	6.00 - 6.00	2605	0.7
MiB3	Memphis and loring silt loams, 2 to 5 percent slopes, severe eroded	3E	None	2.00 - 3.00	•	•
MiC2	Memphis and loring silt loams, 5 to 8 percent slopes, eroded	3E	None	6.00 - 6.00	1170	0.3
MiC2	Memphis and loring silt loams, 5 to 8 percent slopes, eroded	3E	None	2.00 - 3.00	•	•
MiC3	Memphis and loring silt loams, 5 to 8 percent slopes, severe eroded	4E	None	6.00 - 6.00	8140	2.3
MiC3	Memphis and loring silt loams, 5 to 8 percent slopes, severe eroded	4E	None	2.00 - 3.00	•	•

MnD3	Memphis and Natchez silt loams, 8 to 12 percent slopes, severely eroded	6E	None	6.00 - 6.00	4155	1.1
MnD3	Memphis and Natchez silt loams, 8 to 12 percent slopes, severely eroded	6E	None	2.00 - 3.00	*	*
MnE3	Memphis and Natchez silt loam, 12 to 17 percent slopes, severely eroded	6E	None	6.00 - 6.00	3475	1.0
MnE3	Memphis and Natchez silt loam, 12 to 17 percent slopes, severely eroded	7E	None	6.00 - 6.00	*	*
MnF2	Memphis and Natchez silt loams, 17 to 40 percent slopes, eroded	7E	None	6.00 - 6.00	95,260	26.3
MnF2	Memphis and Natchez silt loams, 17 to 40 percent slopes, eroded	7E	None	6.00 - 6.00	*	*
Mr	Morganfield silt loam	2W	Occas	3.00 - 4.00	180	0.1
Ro	Robinsonville loam	1	Rare	4.00 - 6.00	400	0.1
Sc	Sharkey clay	3E	Rare	0.00 - 2.00	12,810	3.5
SsC	Silty land, rolling				1500	0.4
SsF	Silty land, steep				2310	0.6
Sw	Swamp	5W	Freq		880	0.2
Tu	Tunica silty clay	3W	Rare	1.50 - 3.00	4610	1.3
Ur	Sharkey, Tunica, Dowling clays (Sharkey, Tunica, Sharkey)	5W	Freq	0.00 - 2.00	41,075	11.3
Ur	Sharkey, Tunica, Dowling clays (Sharkey, Tunica, Sharkey)	5W	Freq	1.50 - 3.00	*	*
Ur	Sharkey, Tunica, Dowling clays (Sharkey, Tunica, Sharkey)	5W	Freq	0.00 - 2.00	*	*
Wa	Wakeland silt loam (Adler)	2W	Occas	2.00 - 3.00	6705	1.9
Wd	Wakeland silt loam, local alluvium (Adler)	2W	Occas	2.00 - 3.00	1680	0.5
Wf	Waverly and Falaya silt loams (Rosebloom and Collins)	5W	Freq	0.00 - 1.00	9150	2.5
Wf	Waverly and Falaya silt loams (Rosebloom and Collins)	4W	Freq	2.00 - 5.00	*	*
	Total				362,240	100.0

Source: USDA, Soil Conservation Service, State Conservationist, Jackson, MS. Figures were compiled in 1989, but based on the Warren County Soil Survey, 1964, USDA Soil Conservation Service.

* Denotes soils complexes that occur in such an intricate pattern that it was not practical to map them separately. Acreage and proportional extent figures for these soils are listed as a lump sum at the first listing of the complex.

USDA, Soil Conservation Service
Soil Series Map Unit Information

Washington County, Mississippi

Map Symbol	Soil Series Map Unit Name	Capability Class	Annual Flood	Range of Depth to Seasonal High Water Table (feet)	Acres	Percent
	Cities, levees, lakes, other waters, U.S. Air Force Base				20,100	4.3
Aa	Alligator clay, level phase	3W	Rare	0.50 - 2.00	7000	1.5
Ab	Alligator clay, nearly level phase	3W	Rare	0.50 - 2.00	29,270	6.3
Ac	Alligator clay, gently sloping phase	3E	Rare	0.50 - 2.00	470	0.1
Ad	Alligator silty clay loam, level phase	3W	Rare	0.50 - 2.00	720	0.1
Ae	Alligator silty clay loam, nearly level phase	3W	Rare	0.50 - 2.00	4430	0.9
Af	Alluvial land				27,850	6.0
Ba	Beulah very fine sandy loam, nearly level phase	2S	None	6.00 - 6.00	2740	0.6
Bb	Beulah very fine sandy loam, gently sloping phase	2S	None	6.00 - 6.00	940	0.2
Bc	Beulah very fine sandy loam, nearly level, moderately shallow phase	2S	None	6.00 - 6.00	600	0.1
Bd	Bosket silty clay loam, nearly level phase (Askew)	2W	None	1.00 - 2.00	620	0.1
Be	Bosket very fine sandy loam, nearly level phase (Askew)	2W	None	1.00 - 2.00	24,100	5.2
Bf	Bosket very fine sandy loam, gently sloping phase (Askew)	2W	None	1.00 - 2.00	910	0.2
Bg	Bosket very fine sandy loam, nearly level moderately shallow phase (Askew)	2W	None	1.00 - 2.00	680	0.1
Bh	Bowdre silty clay, nearly level phase	2W	Rare	1.50 - 2.00	3170	0.7
Bk	Bowdre silty clay loam, nearly level phase	2W	Rare	1.50 - 2.00	940	0.2
Bp	Borrow pits	8S	None		7500	1.6
Ca	Commerce silty clay loam, nearly level phase	2E	Rare	1.50 - 4.00	10,140	2.2
Cb	Commerce silt loam, nearly level phase	2E	Rare	1.50 - 4.00	1220	0.3
Cd	Commerce silt loam, nearly level shallow phase	2E	Rare	1.50 - 4.00	480	0.1
Ce	Commerce very fine sandy loam	2E	Rare	1.50 - 4.00	1040	0.2
Cf	Commerce very fine sandy loam, moderately shallow phase	2E	Rare	1.50 - 4.00	780	0.2
Cg	Crevasse sandy loams and loamy sands (Bruno)	3S	Occas	4.00 - 6.00	950	0.2
Da	Dowling clay (Sharkey)	4W	Occas	0.00 - 2.00	51,330	11.0
Db	Dowling soils (Sharkey)	4W	Occas	0.00 - 2.00	9000	1.9
Dc	Dubbs silt loam, nearly level phase	1	None	6.00 - 6.00	600	0.1
Dd	Dubbs very fine sandy loam, nearly level phase	1	None	6.00 - 6.00	760	0.2
De	Dundee silt loam, nearly level phase	2W	Rare	1.50 - 3.50	3640	0.8
Df	Dundee silt loam, gently sloping phase	2E	Rare	1.50 - 3.50	220	0.1
Df	Dundee silty clay, nearly level phase	2W	Rare	1.50 - 3.50	2280	0.5
Dh	Dundee silty clay, gently sloping phase	2E	Rare	1.50 - 3.50	270	0.1
Dk	Dundee silty clay loam, nearly level phase	2W	Rare	1.50 - 3.50	15,110	3.3
Dm	Dundee silty clay loam, gently sloping phase	2E	Rare	1.50 - 3.50	2100	0.5
Dn	Dundee silty clay loam, sloping phase	3E	Rare	1.50 - 3.50	450	0.1
Do	Dundee silty clay loam, nearly level shallow phase	2W	Rare	1.50 - 3.50	255	0.1
Dp	Dundee very fine sandy loam, nearly level phase	2W	Rare	1.50 - 3.50	19,670	4.2
Dr	Dundee very fine sandy loam, gently sloping phase	2E	Rare	1.50 - 3.50	830	0.2
Ds	Dundee very fine sandy loam, nearly level shallow phase	2W	Rare	1.50 - 3.50	1130	0.2
Dt	Dundee very fine sandy loam, nearly level moderately shallow phase	2W	Rare	1.50 - 3.50	1140	0.2
Fa	Forestdale silt loam, nearly level phase	3W	Rare	0.50 - 2.00	6000	1.3
Fb	Forestdale silty clay, nearly level phase	3W	Rare	0.50 - 2.00	15,940	3.4
Fc	Forestdale silty clay, gently sloping phase	3W	Rare	0.50 - 2.00	740	0.2
Fd	Forestdale silty clay loam, nearly level phase	3W	Rare	0.50 - 2.00	19,990	4.3
Fe	Forestdale silty clay loam, gently sloping phase	3W	Rare	0.50 - 2.00	760	0.2
Mh	Mhoon silty clay loam	2W	Rare	0.00 - 3.00	200	0.0
Pa	Pearson silt loam, nearly level phase (Dundee)	2W	Rare	1.50 - 3.50	1280	0.3
Ro	Robinsonville very fine sandy loam	1	Rare	4.00 - 6.00	1430	0.3

Sa	Sharkey clay, level phase	3W	Rare	0.00 - 2.00	36,630	7.9
Sb	Sharkey clay, nearly level phase	3E	Rare	0.00 - 2.00	100,460	21.6
Sc	Sharkey clay, gently sloping phase	3E	Rare	0.00 - 2.00	2010	0.4
Sd	Sharkey silty clay loam, nearly level phase	3E	Rare	0.00 - 2.00	4060	0.9
Se	Sharkey very fine sandy loam, nearly level overwash phase	3E	Rare	0.00 - 2.00	2000	0.4
So	Souva silt loam (Commerce)	3W	Occas	1.50 - 4.00	940	0.2
Sw	Swamp	5W	Freq		5550	1.2
Ta	Tunica clay, nearly level phase	3W	Rare	1.50 - 3.00	10,360	2.2
Tb	Tunica clay, gently sloping phase	3E	Rare	1.50 - 3.00	1280	0.3
Tc	Tunica silty clay loam, nearly level phase	3W	Rare	1.50 - 3.00	450	0.1
	Total				465,520	100.0

Source: USDA, Soil Conservation Service, State Conservationist, Jackson, MS. Figures were compiled in 1989, but based on the Washington County Soil Survey, 1961, USDA Soil Conservation Service.

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USDA, Soil Conservation Service
Soil Series Map Unit Information

Yalobusha County, Mississippi

Map Symbol	Soil Series Map Unit Name	Capability Class	Annual Flood	Range of Depth to Seasonal High Water Table (feet)	Acres	Percent
	Water				400	0.1
Ae	Ariel silt loam, occasionally flooded	2W	Occas	2.50 - 4.00	1820	0.6
Ar	Arkabutla silt loam, occasionally flooded	2W	Occas	1.00 - 1.50	1220	0.4
Au	Arkabutla silt loam, frequently flooded	4W	Freq	1.00 - 1.50	4972	1.6
Bo	Bonn silt loam	4S	None	0.00 - 2.00	965	0.3
Br	Bruno sandy loam, occasionally flooded	3S	Occas	4.00 - 6.00	1250	0.4
Bu	Bruno sandy loam, frequently flooded	5W	Freq	4.00 - 6.00	130	0.0
CaA	Calloway silt loam, 0 to 2 percent slopes	2E	None	1.00 - 2.00	3325	1.1
Cc	Cascilla silt loam, occasionally flooded	2W	Occas	6.00 - 6.00	2215	0.7
Cd	Cascilla silt loam, frequently flooded	4W	Freq	6.00 - 6.00	345	0.1
Cn	Collins silt loam, occasionally flooded	2W	Occas	2.00 - 5.00	17,730	5.6
Co	Collins silt loam, frequently flooded	4W	Freq	2.00 - 5.00	3800	1.2
De	Deerford complex	3W	None	0.50 - 1.50	665	0.2
Ga	Gillsburg silt loam, occasionally flooded	2W	Occas	1.00 - 1.50	8310	2.6
Gb	Gillsburg silt loam, frequently flooded	4W	Freq	1.00 - 1.50	500	0.2
GrA	Grenada silt loam, 0 to 2 percent slopes	2E	None	1.50 - 2.50	2215	0.7
GrB	Grenada silt loam, 2 to 5 percent slopes	2E	None	1.50 - 2.50	5540	1.8
LoB2	Loring silt loam, 2 to 5 percent slopes, eroded	2E	None	2.00 - 3.00	2690	0.8
LoC2	Loring silt loam, 5 to 8 percent slopes, eroded	3E	None	2.00 - 3.00	4430	1.4
LoC3	Loring silt loam, 5 to 8 percent slopes, severely eroded	4E	None	2.00 - 3.00	5210	1.6
LoD2	Loring silt loam, 8 to 12 percent slopes, eroded	4E	None	2.00 - 3.00	1330	0.4
LoD3	Loring silt loam, 8 to 12 percent slopes, severely eroded	6E	None	2.00 - 3.00	6735	2.1
LrE	Loring-udorthents complex, gullied		None	2.00 - 3.00	3280	1.0
LrE	Loring-udorthents complex, gullied	3E	None	5.00 - 5.00	*	*
MAE	Maben-Smithdale association, hilly	7E	None	6.00 - 6.00	15,880	5.0
MAE	Maben-Smithdale association, hilly	7E	None	6.00 - 6.00	*	*
MeB2	Memphis silt loam, 2 to 5 percent slopes, eroded	2E	None	6.00 - 6.00	400	0.1
MeC2	Memphis silt loam, 5 to 8 percent slopes, eroded	3E	None	6.00 - 6.00	1840	0.6
MeD3	Memphis silt loam, 8 to 12 percent slopes, severely eroded	6E	None	6.00 - 6.00	1075	0.3
MeE2	Memphis silt loam, 12 to 20 percent slopes, eroded	6E	None	6.00 - 6.00	4430	1.4
Oa	Oaklimeter silt loam, occasionally flooded	2W	Occas	1.50 - 2.50	24,680	7.8
Ok	Oaklimeter silt loam, frequently flooded	4W	Freq	1.50 - 2.50	3658	1.2
Pg	Pits	8S	None		775	0.3
PrB2	Providence silt loam, 2 to 5 percent slopes, eroded	2E	None	1.50 - 3.00	1595	0.5
PrC2	Providence silt loam, 5 to 8 percent slopes, eroded	3E	None	1.50 - 3.00	6735	2.1
PrE2	Providence silt loam, 8 to 15 percent slopes, eroded	4E	None	1.50 - 3.00	2050	0.7
PrE3	Providence silt loam, 8 to 15 percent slopes, severely eroded	6E	None	1.50 - 3.00	15,420	4.9
PvD3	Providence-Smithdale complex, 8 to 12 percent slopes, severely eroded	6E	None	1.50 - 3.00	2425	0.8
PvD3	Providence-Smithdale complex, 8 to 12 percent slopes, severely eroded	6E	None	6.00 - 6.00	*	*
STF	Smithdale-Providence association, hilly	7E	None	6.00 - 6.00	132,210	41.9
STF	Smithdale-Providence association, hilly		None	1.50 - 3.00	*	*
SdE2	Smithdale-Providence complex, 12 to 25 percent slopes, eroded	7E	None	6.00 - 6.00	9990	3.2
SdE2	Smithdale-Providence complex, 12 to 25 percent slopes, eroded		None	1.50 - 3.00	*	*
SmE	Smithdale-udorthents complex, gullied	6E	None	6.00 - 6.00	10,800	3.4
SmE	Smithdale-udorthents complex, gullied	3E	None	5.00 - 5.00	*	*

TaC2	Tippah silt loam, 5 to 8 percent slopes, eroded	3E	None	2.00 - 2.50	575	0.2
TpD2	Tippah-Maben complex, 8 to 12 percent slopes, eroded	4E	None	2.00 - 2.50	1905	0.6
TpD2	Tippah-Maben complex, 8 to 12 percent slopes, eroded	4E	None	6.00 - 6.00	*	*
	Total				315,520	100.0

Source: USDA, Soil Conservation Service, State Conservationist, Jackson, MS. Figures were compiled in 1989, but based on the Yalobusha County Soil Survey, 1978, USDA Soil Conservation Service.

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USDA, Soil Conservation Service
Soil Series Map Unit Information

Yazoo County, Mississippi

Map Symbol	Soil Series Map Unit Name	Capability Class	Annual Flood	Range of Depth to Seasonal High Water Table (feet)	Acres	Percent
	Adler silt loam	2W	Occas	2.00 - 3.00	17,130	2.9
Ae	Adler silt loam, clayey subsoil variant	2W	Occas	2.00 - 3.00	985	0.2
Bm	Bruno-Morganfield complex	5W	Freq	4.00 - 6.00	875	0.1
Bm	Bruno-Morganfield complex	4W	Freq	3.00 - 4.00	*	*
Ca	Calhoun silt loam	3W	None	0.00 - 2.00	5775	1.0
ClA	Calloway silt loam, 0 to 2 percent slopes	2E	None	1.00 - 2.00	7500	1.3
ClB	Calloway silt loam, 2 to 5 percent slopes	3E	None	1.00 - 2.00	6850	1.1
Co	Commerce silt loam	2E	Rare	1.50 - 4.00	1125	0.2
DbA	Dubbs silt loam, 0 to 2 percent slopes	1	None	6.00 - 6.00	12,475	2.1
DbB	Dubbs silt loam, 2 to 5 percent slopes	2E	None	6.00 - 6.00	1630	0.3
DnA	Dundee silt loam, 0 to 2 percent slopes	2W	Rare	1.50 - 3.50	43,340	7.2
DnB	Dundee silt loam, 2 to 5 percent slopes	2E	Rare	1.50 - 3.50	7090	1.2
DuA	Dundee silty clay loam, 0 to 2 percent slopes	2W	Rare	1.50 - 3.50	2035	0.3
DuB	Dundee silty clay loam, 2 to 5 percent slopes	2E	Rare	1.50 - 3.50	1490	0.3
FC	Falaya-Vicksburg-Leverett Association	4W	Freq	1.00 - 2.00	24,275	4.0
FC	Falaya-Vicksburg-Leverett Association	4W	Freq	2.50 - 4.00	*	*
FC	Falaya-Vicksburg-Leverett Association	4W	Freq	2.50 - 3.00	*	*
Fa	Falaya silt loam	2W	Occas	1.00 - 2.00	2795	0.5
Fo	Forestdale silt loam	3W	Rare	0.50 - 2.00	800	0.1
Fr	Forestdale silty clay loam	3W	Rare	0.50 - 2.00	21,435	3.6
GrA	Grenada silt loam, 0 to 2 percent slopes	2E	None	1.50 - 2.50	4080	0.7
GrB2	Grenada silt loam, 2 to 5 percent slopes, eroded	2E	None	1.50 - 2.50	5790	1.0
GuE	Gullied land-Memphis complex, 5 to 30 percent slopes	7E	None	6.00 - 6.00	20,805	3.5
GuE	Gullied land-Memphis complex, 5 to 30 percent slopes	6E	None	6.00 - 6.00	*	*
Le	Leverett silt loam	2W	Occas	2.50 - 3.00	6655	1.1
LoA	Loring silt loam, 0 to 2 percent slopes	2W	None	2.00 - 3.00	1720	0.3
LoB2	Loring silt loam, 2 to 5 percent slopes, eroded	2E	None	2.00 - 3.00	53,990	9.0
LoC2	Loring silt loam, 5 to 8 percent slopes, eroded	3E	None	2.00 - 3.00	23,530	3.9
LoD2	Loring silt loam, 8 to 12 percent slopes, eroded	4E	None	2.00 - 3.00	23,070	3.8
MNE	Memphis-Natchez association, hilly	7E	None	6.00 - 6.00	112,520	18.7
MNE	Memphis-Natchez association, hilly	7E	None	6.00 - 6.00	*	*
MeA	Memphis silt loam, 0 to 2 percent slopes	1	None	6.00 - 6.00	860	0.1
MeB2	Memphis silt loam, 2 to 5 percent slopes, eroded	2E	None	6.00 - 6.00	5345	0.9
MeC2	Memphis silt loam, 5 to 8 percent slopes, eroded	3E	None	6.00 - 6.00	18,010	3.0
Mo	Morganfield silt loam	1	Rare	3.00 - 4.00	48,990	8.2
Sa	Sharkey silty clay loam	3E	Rare	0.00 - 2.00	7925	1.3
Sc	Sharkey clay	3E	Rare	0.00 - 2.00	60,790	10.1
Sd	Sharkey clay, depressional	4W	Occas	0.00 - 2.00	11,500	1.9
Sf	Sharkey and Forestdale soils	5W	Freq	0.00 - 2.00	33,100	5.5
Sf	Sharkey and Forestdale soils	5W	Freq	0.50 - 2.00	*	*

Tu	Tunica silt loam	3W	Rare	1.50 - 3.00	565	0.1
VaE3	Vaiden soils, calcareous variant, 5 to 25 percent slopes, severely eroded	6E	None	1.00 - 2.00	1680	0.3
Vc	Vicksburg silt loam	1	Rare	2.50 - 4.00	1790	0.3
	Total				600,302	100.0

Source: USDA, Soil Conservation Service, State Conservationist, Jackson, MS. Figures were compiled in 1989, but based on the Yazoo County Soil Survey, 1975, USDA Soil Conservation Service.

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