SOIL SURVEY OF

Iberia Parish, Louisiana

United States Department of Agriculture
Soil Conservation Service
in cooperation with
Louisiana Agricultural Experiment Station

This is a publication of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and agencies of the States, usually the Agricultural Experiment Stations. In some surveys, other Federal and local agencies also contribute. The Soil Conservation Service has leadership for the Federal part of the National Cooperative Soil Survey. In line with Department of Agriculture policies, benefits of this program are available to all, regardless of race, color, national origin, sex, religion, marital status, or age.

Major fieldwork for this soil survey was completed in the period 1968-71. Soil names and descriptions were approved in 1972. Unless otherwise indicated, statements in the publication refer to conditions in the survey area in 1971. This survey was made cooperatively by the Soil Conservation Service and the Louisiana Agricultural Experiment Station. It is part of the technical assistance furnished by the Iberia-Vermilion Soil and Water Conservation District.

HOW TO USE THIS SOIL SURVEY

THIS SOIL SURVEY contains information that can be applied in managing farms, ranches, and woodlands; in selecting sites for roads, ponds, buildings, and other structures; and in judging the suitability of tracts of land for farming, industry, and recreation.

Locating Soils

All the soils of Iberia Parish are shown on the detailed map at the back of this publication. This map consists of many sheets made from aerial photographs. Each sheet is numbered to correspond with a number on the Index to Map Sheets.

On each sheet of the detailed map, soil areas are outlined and are identified by symbols. All areas marked with the same symbol are the same kind of soil. The soil symbol is inside the area if there is enough room; otherwise it is outside, and a pointer shows where the symbol belongs.

Finding and Using Information

The "Guide to Mapping Units" can be used to find information. This guide lists all the soils of the parish in alphabetic order by map symbol and gives the capability classification and woodland suitability group of each. It also shows the page where each soil is described.

Individual colored maps showing the relative suitability or degree of limitation of soils for many specific purposes can be developed by using the soil map and the information in the text. Translucent material can be used as an overlay over the soil map and colored to show soils that have the same limitation or suitability. For example, soils that have a slight limitation for a given use can be colored green, those with a moderate limitation can be colored yellow, and those with a severe limitation can be colored red.

Farmers and those who work with farmers can learn about use and management of the soils from the soil descriptions.

Foresters and others can refer to the section "Soils and Woodland," where the soils of the parish are grouped according to their suitability for trees.

Game managers, sportsmen, and others can find information about soils and wildlife in the section "Soils and Wildlife."

Ranchers and others can find, under "Soils and Range," groupings of the soils suitable for range, the plants that grow on each range site, and the hazards on marsh range.

Community planners and others can read about soil properties that affect the choice of sites for dwellings, industrial buildings and for recreation areas in the section "Soils and Engineering."

Engineers and builders can find, under "Soils and Engineering," estimates of soil properties and information about soil features that affect engineering practices.

Scientists and others can read about how the soils formed and how they are classified in the section "Formation and Classification of the Soils."

Newcomers in Iberia Parish may be especially interested in the section "General Soil Map," where broad patterns of soils are described. They may also be interested in the information about the parish given in the sections "General Nature of the Parish" and "Additional Facts About the Parish."

Cover: Bayside Plantation on Gallion soil in an area of Gallion-Perry complex, gently undulating. Gallion soils are moderately limited for buildings with basements. Perry soils are severely limited.

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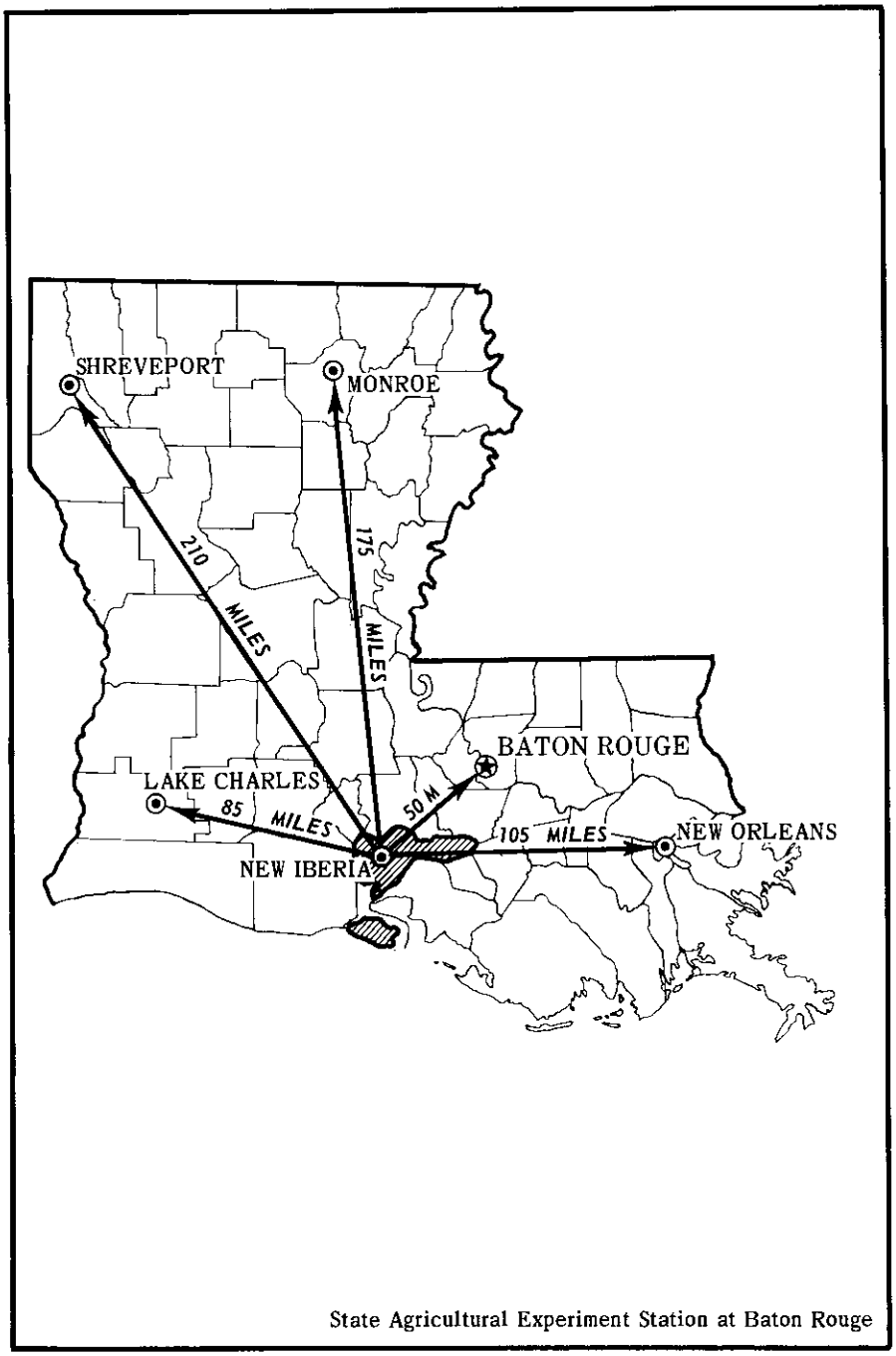

Location of Iberia Parish in Louisiana.

SOIL SURVEY OF IBERIA PARISH, LOUISIANA

BY HENRY L. CLARK AND ALMOND G. WHITE, SOIL CONSERVATION SERVICE

UNITED STATES DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE, IN COOPERATION WITH THE LOUISIANA AGRICULTURAL EXPERIMENT STATION

General Nature of the Parish

Iberia Parish is in the southern part of Louisiana, about 100 miles west of New Orleans (see facing page). The total area of the parish is 414,080 acres, of which 377,654 acres is land and 36,426 acres in lakes, bayous, and the Atchafalaya River. The acreage does not include East Cote Blanche, West Cote Blanche, and Vermilion Bays. The population of the parish in 1970 was 57,397 (*26*).[1]

Most of the parish is less than 5 feet above sea level. About one-third is swamps, and about one-third is marshes. The rest is more than 5 feet above sea level. The elevation commonly ranges to as much as 30 feet above sea level, but on the Avery Island salt dome it extends up to 150 feet above sea level.

The parish is made up of four major physiographic areas: the terrace upland, the alluvial plain, the marshes and tidal swamps, and the salt domes.

The terrace upland is in the west-central part of the parish, at some of the highest elevations in the parish. The soils formed in loess and are low in sand content. They respond well to management. Most of the area is cultivated or used for homesites and other nonfarm purposes. Sugarcane is the principal crop.

The soils of the alluvial plain are in the northern and eastern part of the parish. They formed in sediment deposited by the Mississippi, Atchafalaya, and Red Rivers. The alluvial plain consists of the natural levees of Bayou Teche and swampy areas.

The loamy and clayey soils on the natural levee of Bayou Teche are at some of the highest elevations of the alluvial plain. The west Atchafalaya Basin protection levee protects this area from flooding by the Atchafalaya River. Most of the acreage is cleared and is cultivated or used for homesites. The soils respond well to management. Sugarcane is the principle crop. Bayou Teche (fig. 1) is a prehistoric channel of the Mississippi River. Many homesites are along the bayou.

The rest of the alluvial plain is mostly swamp. The Atchafalaya River and Atchafalaya Basin Floodway system dissect this area. The floodway flow rights are owned by the Federal government. The soils outside the levee system of the floodway are clayey and are mostly wooded. Some are cleared, drained, and cultivated. The soils inside the levee system of the floodway are loamy and clayey. They are subject to annual deposition of sediment by flooding of the Atchafalaya River. They are also subject to deep flooding during winter and spring. This part of the alluvial plain is unpopulated. When it is flooded, deepwater crawfish are harvested. The area is used for woodland, fish and wildlife habitat, recreation, and the production of petroleum.

About half of the marshes and all of the tidal swamps are on the mainland in the southwestern part of the parish. All of Marsh Island is marsh. The soils are mostly organic. They are mostly near sea level, but range up to 2 feet above sea level. The mineral soils of the marshes formed in alluvium, loess, and marine deposits. The organic soils of the marshes and tidal swamps formed in the accumulated remains of marsh or woody vegetation. They are flooded most of the time. They are frequently flooded to shallow depths by the normal tides of the Gulf of Mexico. The Gulf of Mexico's mean high tide level at Marsh Island is 0.82 foot, and the mean low tide level is 0.04 foot. The highest tide is 2.6 feet and the lowest tide is −2.2 feet (*3*). These soils are also subject to occasional deep flooding by storm and hurricane tides as much as 10 feet above normal.

The marshes and tidal swamps are not populated. They are used principally for fish and wildlife habitat, recreation, and the production of petroleum. Flooding by saline water has had a significant influence on the soils of the marshes. Intermediate and Brackish Marsh vegetative types are dominant (*3*). Soil and water salinity is greatest at the Gulf and decreases with distance inland (*3*). About 10 percent of the marshes are firm enough to support livestock grazing, but only about 5 percent are grazed. The rest is too soft to support livestock. The soils of the marshes are part of the fertile and productive estuarine complex of Louisiana that is vital to the support of marine life of the Gulf of Mexico. The Russell Sage Wildlife Refuge and Game Preserve occupies all of Marsh Island.

Weeks, Avery, and Jefferson Island are salt domes in the southwestern part of the parish, at the highest elevations in the parish. Weeks Island is about 120 feet above sea level; Avery Island, 150 feet; and Jefferson Island, 75 feet. The surfaces of the salt domes were pushed to their present elevation by the pressure

[1] Italic numbers in parentheses refer to "Literature Cited," page 66.

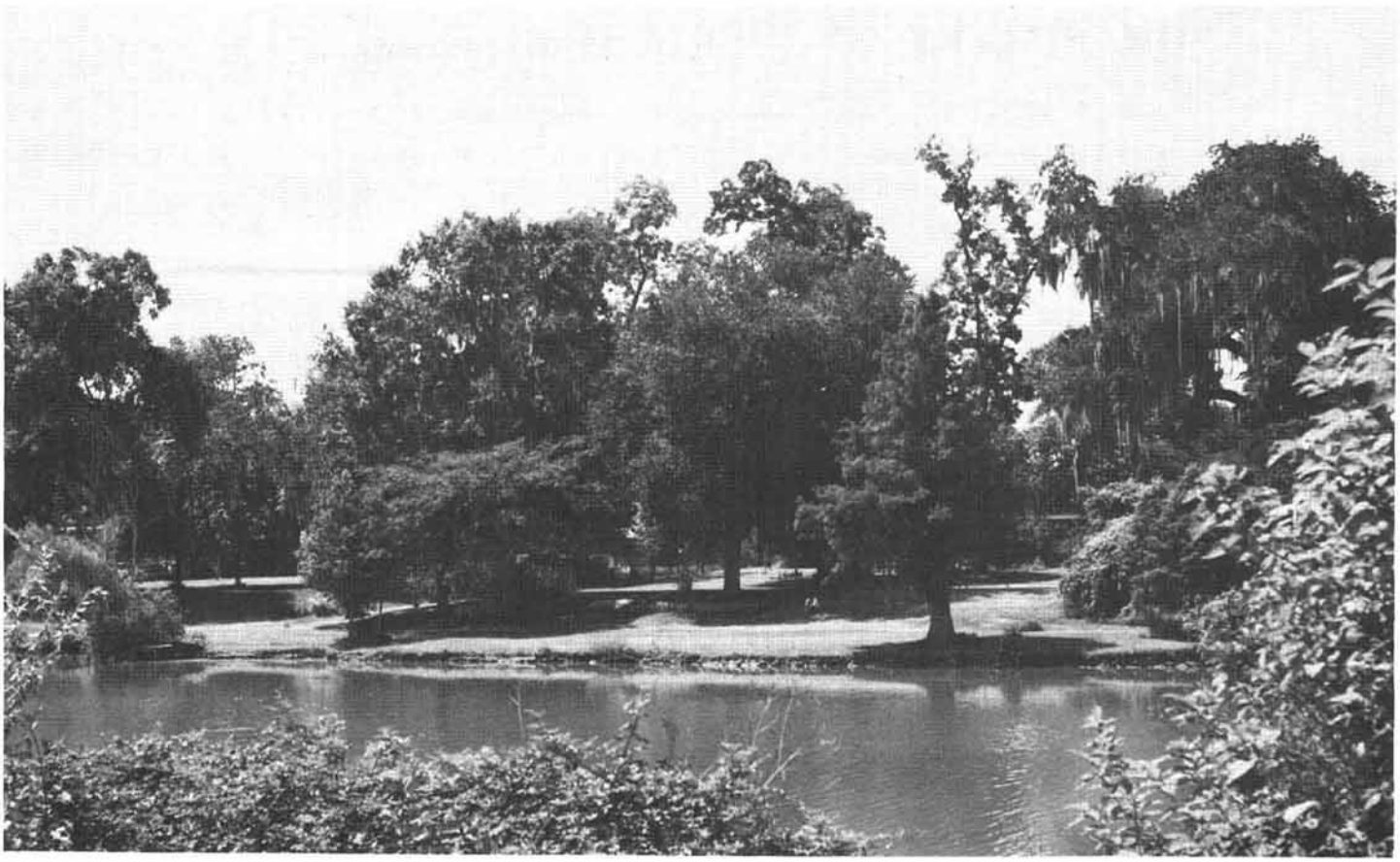

Figure 1.—Bayou Teche, a prehistoric channel of the Mississippi River.

of underground masses of salt. Loess was deposited on these domes during the period of loess deposition. The loess mantle has been removed in places by erosion. Parts of the salt domes have collapsed through subsurface solution, and the loess mantle is absent. The soils on the salt dome islands are used mostly for recreation, wildlife habitat, and homesites and other nonfarm purposes. Peppers and sugarcane are grown. The underground masses of salt are a major source of high-grade salt for the United States.

How This Survey Was Made

Soil scientists made this survey to learn what kinds of soil are in Iberia Parish, where they are located, and how they can be used. The soil scientists went into the parish knowing they likely would find many soils they had already seen and perhaps some they had not. They observed the steepness, length, and shape of slopes, the size and speed of streams, the kinds of native plants or crops, and many facts about the soils. They dug many holes to expose soil profiles. A profile is the sequence of natural layers, or horizons, in a soil; it extends from the surface down into the parent material that has not been changed much by leaching or by the action of plant roots.

The soil scientists made comparisons among the profiles they studied, and they compared these profiles with those in parishes nearby and in places more distant. They also referred to the more general soil survey of Iberia Parish made in 1912 (*21*). They classified and named the soils according to nationwide, uniform procedures. The *soil series* and the *soil phase* are the categories of soil classification most used in a local survey.

Soils that have profiles almost alike make up a soil series. Except for different texture in the surface layer, all the soils of one series have major horizons that are similar in thickness, arrangement, and other important characteristics. Each soil series is named for a town or other geographic feature near the place where a soil of that series was first observed and mapped. Loreauville and Jeanerette, for example, are the names of two soil series. All the soils in the United States having the same series name are essentially alike in those characteristics that affect their behavior in the undisturbed landscape.

Soils of one series can differ in texture of the surface layer and in slope or some other characteristic that affects use of the soils by man. On the basis of such differences, a soil series is divided into phases. The name of a soil phase indicates a feature that affects management. For example, Alligator clay, occasionally flooded, is one of several phases within the Alligator series.

After a guide for classifying and naming the soils had been worked out, the soil scientists drew the boundaries of the individual soils on aerial photographs. These photographs show woodlands, buildings, field borders, trees, and other details that help in drawing boundaries accurately. The soil map at the back of this publication was prepared from aerial photographs.

The areas shown on a soil map are called mapping units. On most maps detailed enough to be useful in planning the management of farms and fields, a mapping unit is nearly equivalent to a soil phase. It is not exactly equivalent, because it is not practical to show on such a map all the small, scattered bits of soil of some other kind that have been seen within an area that is dominantly a recognized soil phase.

Some mapping units are made up of soils of different series, or of different phases within one series. Three such kinds of mapping units are shown in the soil map of Iberia Parish: soil complexes, soil associations, and undifferentiated groups.

A soil complex consists of areas of two or more soils, so intricately mixed or so small in size that they cannot be shown separately on the soil map. Each area of a complex contains some of each of the two or more dominant soils, and the pattern and relative proportions are about the same in all areas. The name of a soil complex consists of the names of the dominant soils joined by a hyphen. Gallion-Perry complex, gently undulating, is an example.

A soil association is made up of adjacent soils that are in areas large enough to be shown individually on the soil map but are shown as one unit because the time and effort of delineating them separately cannot be justified. There is a considerable degree of uniformity in pattern and relative extent of the dominant soils, but the soils may differ greatly one from another. The name of an association consists of the names of the dominant soils joined by a hyphen. The Fausse-Convent association is an example.

An undifferentiated group is made up of two or more soils that could be delineated individually but are shown as one unit because, for the purpose of the soil survey, there is little value in separating them. The pattern and proportion of soils are not uniform. An area shown on the map may be made up of only one of the dominant soils, or of two or more. Fausse soils is an example.

While a soil survey is in progress, soil scientists take soil samples needed for laboratory measurements and for engineering tests. Laboratory data from the same kinds of soil in other places are also assembled. Data on yields of crops under defined practices are assembled from farm records and from field or plot experiments on the same kinds of soil. Yields under defined management are estimated for all the soils.

Soil scientists observe how soils behave when used as a growing medium for native and cultivated plants and as material for structures, foundations for structures, or covering for structures. They relate this behavior to properties of the soils. For example, they observe that filter fields for onsite disposal of sewage fail on a given kind of soil, and they relate this to the slow permeability of the soil or its high water table. They see that streets, road pavements, and foundations for houses crack on a given kind of soil, and they relate this failure to the high shrink-swell potential of the soil material. Thus, they use observation and knowledge of soil properties, together with available research data, to predict the limitations or suitability of a soil for present and potential uses.

After data have been collected and tested for the key, or benchmark, soils in a survey area, the soil scientists set up trial groups of soils. They test these groups by further study and by consultation with farmers, engineers, and others. They then adjust the groups according to the results of their study and consultation. Thus, the groups that are finally evolved reflect up-to-date knowledge of the soils and their behavior under current methods of use and management.

General Soil Map

The general soil map at the back of this survey shows, in color, the soil associations in Iberia Parish. A soil association is a landscape that has a distinctive proportional pattern of soils. It normally consists of one or more major soils and at least one minor soil, and it is named for the major soils. The soils in one association may occur in another, but in a different pattern.

A map showing soil associations is useful to people who want a general idea of the soils in a parish, who want to compare different parts of a parish, or who want to know the location of large tracts that are suitable for a certain kind of land use. Such a map is a useful general guide in managing a watershed, a wooded tract, or a wildlife area, or in planning engineering works, recreational facilities, and community developments. It is not a suitable map for planning the management of a farm or field, or for selecting the exact location of a road, building, or similar structure, because the soils in any one association ordinarily differ in slope, depth, drainage, and other characteristics that affect their management.

The soil associations in this survey have been grouped in three general kinds of landscapes for broad interpretative purposes. Each group and the 12 soil associations are described on the following pages.

Mineral Soils That Are Seldom to Never Flooded

Soils of this group are mostly at elevations of 5 to 25 feet above sea level (fig. 2). A small acreage on the salt domes is as much as 150 feet above sea level. Generally, only the soils in depressions and at low elevations are flooded by runoff or by hurricanes and tropical storm tides. The West Atchafalaya Basin protection levee prevents flooding of some of these areas by the Atchafalaya River. Most of the acreage is cultivated. Sugarcane is the principal crop. The five soil associations in this group make up 38 percent of the parish.

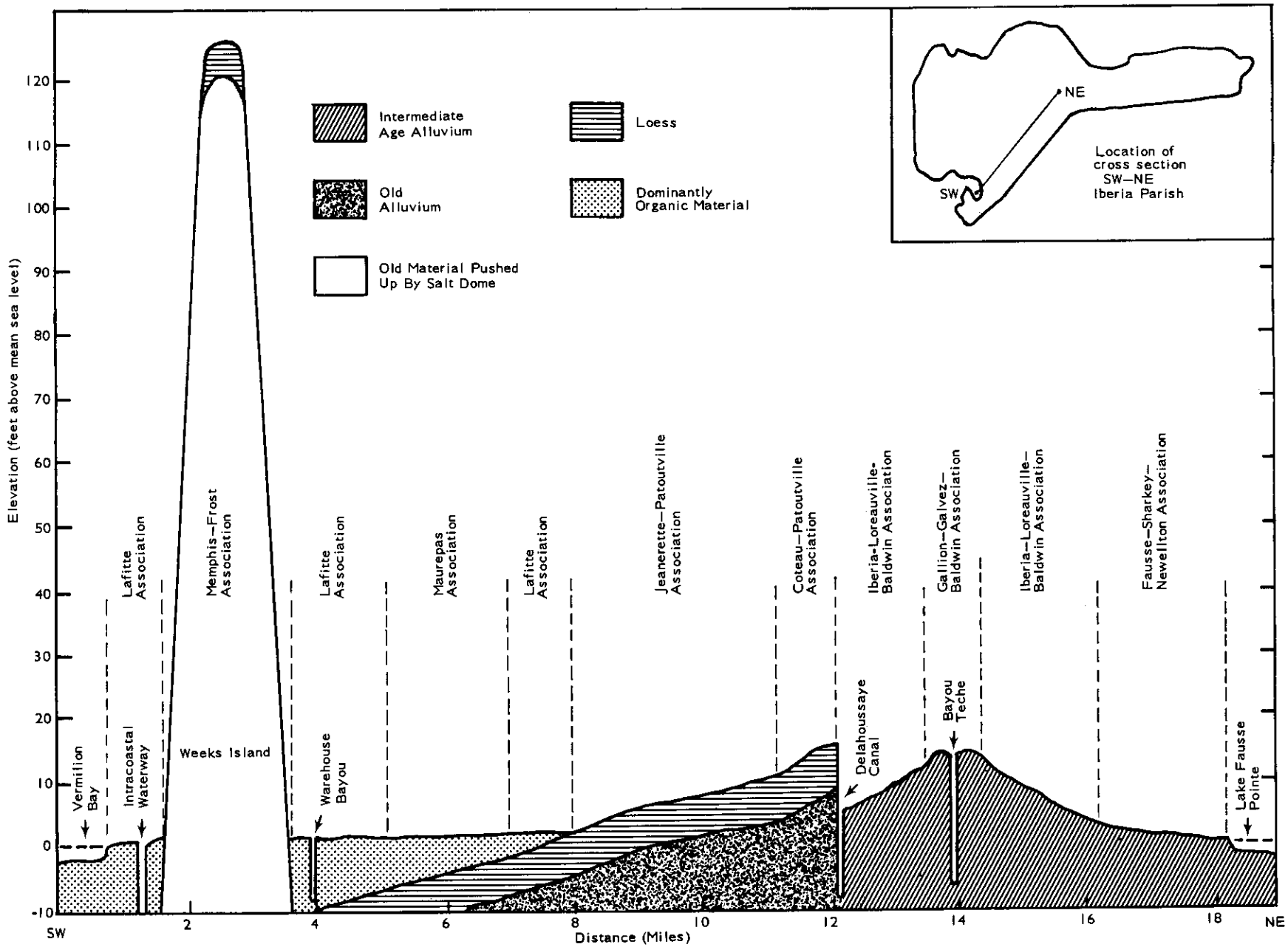

Figure 2.—**Cross section of Iberia Parish showing elevation and parent material by soil associations.**

1. *Iberia-Loreauville-Baldwin association*

Level, poorly drained clayey soils and somewhat poorly drained loamy soils of the alluvial plain

This association is at intermediate elevations on the Bayou Teche natural levee part of the alluvial plain. Elevations are dominantly 5 to 15 feet above sea level. Some areas are flooded by local runoff. Drainage of surface runoff is provided by a parallel ditch system and improved natural outlets. The West Atchafalaya Basin protection levee protects the association from general flooding by the Atchafalaya River.

The association makes up about 13 percent of the parish. It is about 30 percent Iberia soils, 22 percent Loreauville soils, 22 percent Baldwin soils, and 26 percent Sharkey, Alligator, and Galvez soils.

Iberia soils are in low areas. They have a surface layer of black silty clay and a subsoil of dark grayish-brown and dark-gray clay. They are poorly drained and very slowly permeable.

Loreauville soils are at higher elevations than the other soils in the association. They have a surface layer of very dark gray silt loam and a subsoil of grayish-brown silty clay loam. They are somewhat poorly drained and moderately slowly permeable.

Baldwin soils are at intermediate elevations. They have a surface layer of very dark grayish-brown silty clay loam and a subsoil of dark-gray and olive-gray clay or silty clay loam. They are poorly drained and very slowly permeable.

Most of the association is cultivated. Sugarcane is the principal crop (fig. 3). Rice, soybeans, and truck crops are also grown. Farms are about 100 to 500 acres. Most are owner operated. There is no trend toward a change in land use.

The association is suited to most crops and pasture plants grown in the parish. Surface drainage and complete fertilization are needed. The association is also suited to wildlife habitat and woodland. Wetness, low strength, and high shrink-swell potential are the main limitations on the Iberia and Baldwin soils. Wetness and low strength are the main limitations on the Loreauville soils.

2. *Jeanerette-Patoutville association*

Level to nearly level, somewhat poorly drained loamy soils of the terrace upland

This association consists of soils that are loamy throughout. It is at lower elevations, on flats on the terrace upland. Elevations are dominantly 3 to 20 feet above sea level. Some low areas are flooded for short periods by local runoff. Drainage of surface runoff is provided by a parallel ditch system and improved natural outlets.

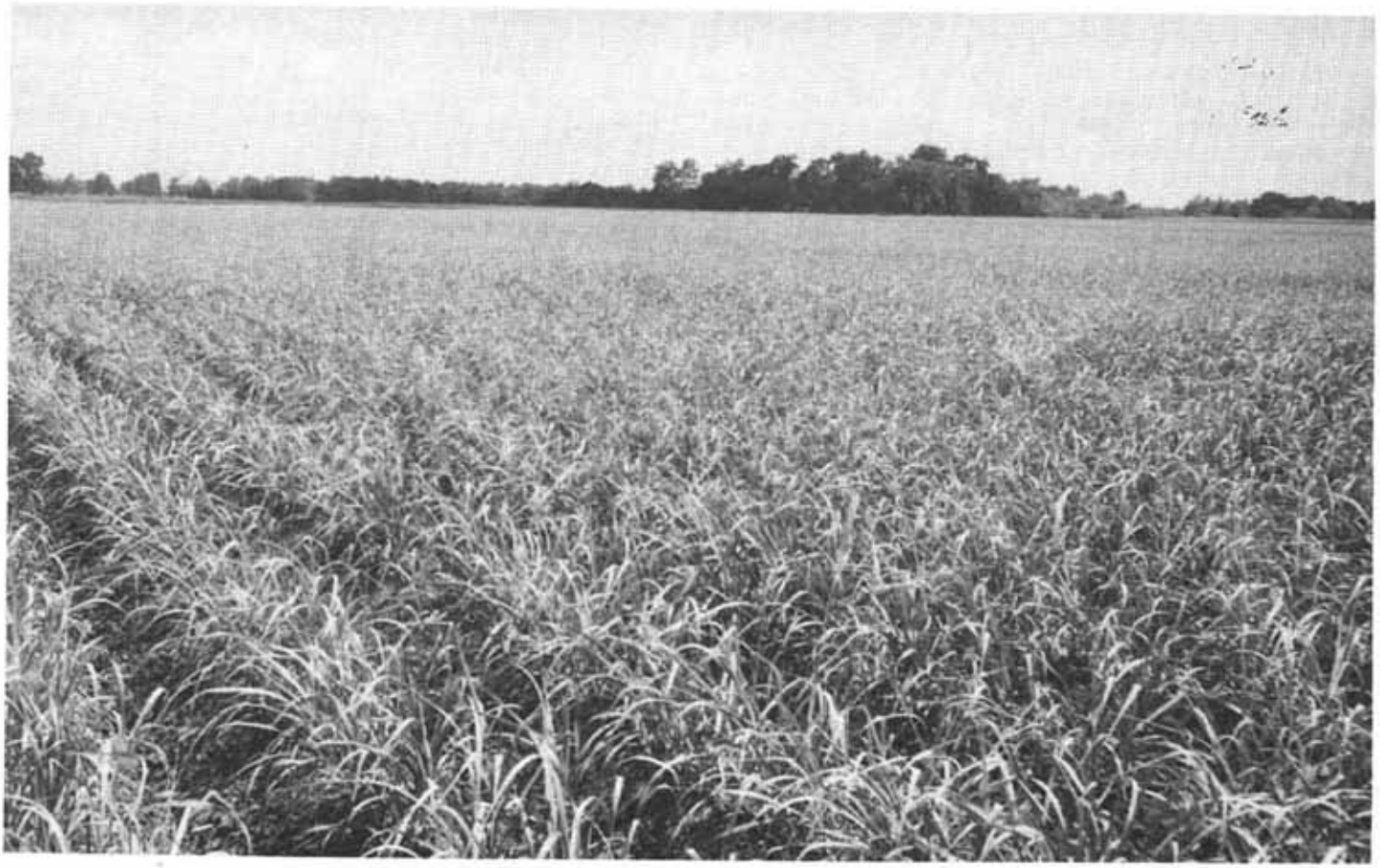

Figure 3.—Young sugarcane on Iberia silty clay.

The association makes up about 17 percent of the parish. It is about 85 percent Jeanerette soils, 13 percent Patoutville soils, and 2 percent Iberia, Coteau, and Baldwin soils.

Jeanerette soils are on flats at the lowest elevations. They have a surface layer of black silt loam and a subsoil of dark-gray and grayish-brown silty clay loam. They are somewhat poorly drained and moderately slowly permeable.

Patoutville soils are at the highest elevations and are sloping. They have a surface layer of dark grayish-brown silt loam and a subsoil of dark grayish-brown and grayish-brown silty clay loam mottled with yellowish red and yellowish brown. They are somewhat poorly drained and slowly permeable.

Most of the association is cultivated. Sugarcane is the principal crop. Some rice, soybeans, and truck crops are grown. Farms are about 50 to 100 acres. Most are owner operated. There is no trend toward a change in land use.

The association is suited to most crops and pasture plants grown in the parish. Surface drainage and complete fertilization are needed. The association is also suited to wildlife and woodland. Wetness and low strength are the main limitations for most uses.

3. *Gallion-Galvez-Baldwin association*

Undulating, level and nearly level, well-drained and somewhat poorly drained loamy soils and poorly drained clayey soils of the alluvial plain

This association is at the highest elevations on the Bayou Teche natural levee part of the alluvial plain. Slopes are generally less than 1 percent, but in about one-third of the area they are 1 to 3 percent and undulating. In some small areas slopes are 3 to 8 percent. Elevations are dominantly 10 to 20 feet above sea level. Drainage of surface runoff is provided by an open ditch system. In places, low areas are flooded for short periods by local runoff.

The association makes up about 4 percent of the parish. It is about 25 percent Gallion soils, 25 percent Galvez soils, 25 percent Baldwin soils, and 25 percent Alligator, Perry, Loreauville, and Iberia soils.

Gallion soils are at intermediate elevations and have steeper slopes than the other soils in the association. They are parallel and adjacent to Bayou Teche. They have a surface layer of dark-brown silt loam and a subsoil of reddish-brown silty clay loam and silt loam. They are well drained and moderately permeable.

Galvez soils are at the highest elevations. They have a surface layer of dark grayish-brown silt loam and a subsoil of grayish-brown silty clay loam and silt loam. They are somewhat poorly drained and moderately slowly permeable.

Baldwin soils are at the low elevations and are farther from Bayou Teche. They have a surface layer of very dark grayish-brown silty clay loam and a subsoil of dark-gray and olive-gray clay. They are poorly drained and very slowly permeable.

Most of the acreage of Galvez and Baldwin soils is cultivated. Most of the acreage of Gallion soils and a small acreage of Galvez soils is used for homesites and other nonfarm uses. Sugarcane is the principal crop. Soybeans and truck crops are also grown. The farms are about 100 to 500 acres. Most are owner operated. The trend is toward a change from cropland to homesites and other nonfarm uses.

The association is suited to most crops and pasture plants grown in the parish. Surface drainage and complete fertilization are needed on Galvez and Baldwin soils. Land smoothing, control of erosion, and complete fertilization are needed on Gallion soils. The association is also suited to wildlife habitat and woodland. Low strength is a limitation for some uses on the Gallion soils; wetness and low strength are the main limitations on Galvez soils; and wetness, low strength, and high shrink-swell potential are the main limitations for most uses on Baldwin soils. The Gallion soils adjacent to Bayou Teche are choice homesites.

4. *Coteau-Patoutville association*

Nearly level and very gently sloping, somewhat poorly drained loamy soils of the terrace upland

This association consists of soils that are loamy throughout. It is at the highest elevations and on the most sloping landscape on the terrace upland. Slopes are generally ⅓ to 2 percent. Elevations are dominantly 10 to 30 feet above sea level. Drainage of surface runoff is provided by ditches dug in the depressions and by improved natural outlets. The association is generally not subject to flooding.

The association makes up about 3 percent of the parish. It is about 40 percent Coteau soils, 28 percent Patoutville soils, and 32 percent Calhoun, Frost, Memphis, and Jeanerette soils.

Coteau soils are at the highest elevations and are on the most sloping landscapes. They have a surface layer of dark grayish-brown silt loam and a subsoil of dark yellowish-brown and brown silty clay loam. They are somewhat poorly drained and moderately slowly permeable.

Patoutville soils are the lower elevations and are on flats. They have a surface layer of dark grayish-brown silt loam and a subsoil of dark grayish-brown silty clay loam over yellowish-brown and light olive-gray silt loam. They are somewhat poorly drained and slowly permeable.

Most of the association is cultivated. Sugarcane is the principal crop. Soybeans and truck crops are also grown. Farms are about 10 to 50 acres. Most are owner operated. The trend is toward a change from cropland to homesites and other nonfarm uses.

The association is suited to most crops and pasture plants grown in the parish. Surface drainage and complete fertilization are needed. The association is also suited to wildlife habitat and woodland. Wetness and low strength are the main limitations for most uses.

5. *Memphis-Frost association*

Sloping and hilly, well-drained and very gently sloping, poorly drained loamy soils of the salt domes

This association consists of soils that are loamy

throughout. It is at the highest elevations and on the most sloping and dissected landscape in the parish—the salt domes on Avery, Weeks, and Jefferson Islands. Slopes generally are 1 to 8 percent. On small acreage they are 8 to 24 percent. Elevations are 5 to 150 feet above sea level. Drainage of surface runoff is through natural depressions and constructed waterways. Most of the area is not subject to flooding. Depressions and low areas are occasionally flooded for short periods.

The association makes up about 1 percent of the parish. It is about 67 percent Memphis soils, 23 percent Frost soils, and 10 percent soils that are sandy throughout the profile and steep, gullied areas of loamy, sandy, and clayey material.

Memphis soils are at the highest elevations and on some of the most sloping terrain. They have a surface layer of dark-brown silt loam and a subsoil of dark-brown silty clay loam and silt loam. They are well drained and moderately permeable.

Frost soils are in valleys and on foot slopes where slopes are mostly 1 to 5 percent. They have a surface layer of dark grayish-brown, black, and gray silt loam and a subsoil of gray silty clay loam. They are poorly drained and slowly permeable.

Most of the association is wooded (fig. 4). It is largely used for recreation, wildlife habitat, homesites, and other nonfarm uses. Most of the Frost soils and a small acreage of Memphis soils are cultivated. Pepper is the principal crop on the Frost soils, and some sugarcane is grown on the Memphis soils. A small acreage of soybeans is grown on both soils. The association is owned by two corporations and one individual. There is no trend toward a change in land use.

The Frost soils and the less sloping Memphis soils are suited to most crops and pasture plants grown in the parish. Erosion control practices are needed when these soils are cultivated. Complete fertilizers and lime are needed for most crops and pasture plants. The association is also suited to woodland, wildlife habitat, and recreation. Low strength and the slope of the Memphis soils and the wetness of the Frost soils are the main limitations for most uses.

Mineral Soils That Are Frequently to Occasionally Flooded

Soils of this group are at elevations between sea level and 5 feet above sea level. They are subject to

Figure 4.—Area of Memphis-Frost association provides grazing and recreation.

general flooding by local runoff, gulf tidewater, or the Atchafalaya River. About three-fourths of the acreage is wooded. The rest is in marsh vegetation. The five soil associations in this group make up 36 percent of the parish.

6. *Fausse-Sharkey-Newellton association*

Very poorly drained to somewhat poorly drained clayey soils of the alluvial plain adjacent to the Atchafalaya Basin Floodway

This association is in low areas and swamps in the Lake Fausse Pointe part of the alluvial plain and in the low areas on the east side of the Bayou Teche natural levee part of the alluvial plain (see figure 2, page 4). It is nearly level. Elevations are dominantly 2 to 5 feet above sea level. Most of the area is flooded much of the time by freshwater from local runoff. The West Atchafalaya Basin protection levee protects the association from general flooding by the Atchafalaya River.

The association makes up about 10 percent of the parish. It is about 49 percent Fausse soils, 29 percent Sharkey soils, 12 percent Newellton soils, and 10 percent Baldwin and Convent soils.

Fausse soils are mainly in swamps. They have a surface layer of dark-gray clay and a subsoil of gray clay. They are very poorly drained and very slowly permeable. They are flooded much of the time by freshwater.

Sharkey soils are at the highest elevations in the low areas. They have a surface layer of dark-gray clay and a subsoil of gray clay. They are poorly drained and very slowly permeable. They are occasionally flooded for short periods by freshwater.

Newellton soils are in low areas. They have a surface layer of dark-brown clay and a subsoil of dark reddish-gray clay. The underlying material is stratified grayish and brownish very fine sandy loam, loamy very fine silt loam, and clay. The soils are somewhat poorly drained and slowly permeable. They are frequently flooded for long periods by freshwater.

Most of the association is wooded (fig. 5). It is also used for wildlife habitat and recreation. Large areas have been developed for commercial production of crawfish. The present trend is toward clearing and draining the less frequently flooded part of the association and using it for crops. Most of the association is owned by corporations and the State of Louisiana.

Flooding, wetness, low strength, and high shrink-swell potential are the main limitations for most uses.

Figure 5.—Wooded area of Fausse-Sharkey-Newellton association provides wildlife habitat.

7. *Fausse-Convent association*

Very poorly drained clayey soils and somewhat poorly drained loamy soils of the Atchafalaya Basin Floodway part of the alluvial plain

This association is in swamps and on natural levee ridges in the Atchafalaya Basin Floodway. It is nearly level. Elevations are dominantly 2 to 4 feet above sea level. Near the Atchafalaya River elevations are 5 to 13 feet above sea level. In most years the area is flooded from December through June by 2 to 8 feet of freshwater. The area is subject to scouring and deposition from floodwaters of the Atchafalaya River.

The association makes up about 5 percent of the parish. It is about 75 percent Fausse soils and 25 percent Convent soils. Small areas of Newellton soils are included.

Fausse soils are mainly in swamps. They have a surface layer of dark-gray clay and a subsoil of dark-gray and gray clay. They are very poorly drained and very slowly permeable. They are flooded much of the time by freshwater.

Convent soils are on the natural levee ridges. They have a surface layer of dark grayish-brown, stratified very fine sandy loam and silt loam and a subsoil of stratified, grayish-brown and brown very fine sandy loam, silt loam, and loamy very fine sand. The soils are somewhat poorly drained and moderately permeable.

They are flooded annually by freshwater, but are not flooded so deep nor so long as Fausse soils.

All of the association is part of the Atchafalaya Basin Floodway. Flow rights are owned by the Federal government. The association is also used for woodland, wildlife habitat, and recreation. There is no trend toward a change in land use. Most of the association is owned by the State of Louisiana and by corporations.

Flooding, scouring, and deposition are the main limitations for Fausse and Convent soils, and wetness, low strength, and high shrink-swell potential are additional limitations for Fausse soils.

8. Fausse association

Very poorly drained clayey soils of the Atchafalaya Basin Floodway part of the alluvial plain

This association is in swamps in the Atchafalaya Basin Floodway. It is nearly level. Elevations are dominantly 2 to 4 feet above sea level. In most years the area is flooded from December through June by 2 to 8 feet of freshwater.

This association makes up about 13 percent of the parish. It is about 75 percent Fausse soils, 15 percent soils that are semifluid to a depth of 20 inches, and 10 percent Sharkey soils and similar soils.

The Fausse soils have a surface layer of dark-gray clay and a subsoil of gray or dark-gray clay. They are very poorly drained and very slowly permeable. They are flooded much of the time by freshwater.

This association is used for woodland, wildlife habitat, and recreation. It is a natural habitat for deep-water crawfish. Most of the association is owned by corporations. All of it is in the Atchafalaya Basin Floodway. Flow rights in the floodway are owned by the Federal Government. There is no trend toward a change in land use.

Flooding, wetness, low strength, and high shrink-swell potential are the main limitations for most uses.

9. Placedo association

Very poorly drained clayey soils of the firm marshes

This association is in the firm marshes on the gulf side of Marsh Island. It is nearly level. Elevations are 2 to 5 feet above sea level. Much of the areas is flooded by the highest of the normal gulf tides. It is also subject to occasional deep flooding by storm tides. Tides range up to 10 feet above normal when hurricanes and tropical storms pass over or near the area.

The association makes up about 2 percent of the parish. It is about 80 percent Placedo soils and 20 percent Scatlake soils and small, narrow ridges of sand and shell deposits along the gulf shore.

Placedo soils have a surface layer of organic material about 1 inch thick over gray clay about 8 inches thick. Below this to a depth of 12 inches is gray silty clay that has thin layers of very fine sandy loam. The underlying material is gray clay. Placedo soils are very poorly drained, very slowly permeable, and saline. They are firm enough for livestock grazing.

Most of the vegetation is of the Brackish Marsh type (*3*), which is dominantly marshhay cordgrass and seashore saltgrass. The association is part of the Russell Sage Wildlife Refuge and Game Preserve. It is managed by the Refuge Division of the Louisiana Wild Life and Fisheries Commission. No change in land use is foreseen.

Flooding, wetness, low strength, and high shrink-swell potential are the main limitations for most uses. Salinity is a limitation for some.

10. Scatlake association

Very poorly drained clayey soils of the soft marshes

This association is in soft marshes on Marsh Island. It is nearly level. Elevations are near sea level. Most of the area is flooded much of the time by normal gulf tides. It is also subject to occasional deep flooding by storm tides. Tides range up to 10 feet above normal when hurricanes and tropical storms pass over or near the area. There are many lakes and tidal channels.

The association makes up about 6 percent of the parish. It is about 80 percent Scatlake soils and 20 percent Placedo and Lafitte soils.

Scatlake soils have a surface layer of mucky peat about 6 inches thick. Below this is about 6 inches of very dark gray, semifluid mucky clay. The underlying material is dark-gray, black, gray, and greenish-gray, semifluid clay and mucky clay. The soils are very poorly drained, very slowly permeable, and saline. They are too boggy for livestock grazing.

Most of the vegetation is the Brackish Marsh type (*3*), which is dominantly marshhay cordgrass and needlegrass rush. The association is part of the Russell Sage Wildlife Refuge and Game Preserve. It is managed by the Refuge Division of the Louisiana Wild Life and Fisheries Commission. It produces valuable wildlife habitat in addition to furnishing an environment that supports marine life of the Gulf of Mexico. No change in land use is foreseen.

Flooding, wetness, low strength, and high shrink-swell potential are the main limitations for most uses. Salinity is a limitation for some uses.

Organic Soils That Are Frequently Flooded

Soils of this group are at elevations of less than 2 feet above sea level (see figure 2, page 4). They are subject to shallow flooding by the highest normal gulf tides. They are also subject to occasional deep flooding by storm tides. Most of the acreage is in marsh vegetative types. Some is wooded. The two soil associations in this group make up 26 percent of the parish.

11. Lafitte association

Very poorly drained organic soils of the soft marshes

This association is in soft marshes on the mainland and on Marsh Island. It is nearly level. Elevations are less than 2 feet above sea level. Most of the area is flooded much of the time by about 6 inches of water. It is also subject to occasional deep flooding by storm tides. Tides range up to 10 feet above normal when hurricane and tropical storms pass over or near the area. There are many lakes and tidal channels.

The association makes up 20 percent of the parish. It is about 86 percent Lafitte soils and 14 percent Andry, Delcomb, Iberia, and Maurepas soils.

Lafitte soils have a surface layer of dark-brown organic material that is underlain by 116 inches of very dark grayish-brown, dark reddish-brown, very dark gray, and black, almost completely decomposed, semifluid organic material. The soils are saline.

Lafitte soils are used mainly for wildlife habitat. They are too boggy for livestock grazing. About half the acreage of Lafitte soils is in the Russell Sage Wildlife Refuge and Game Preserve. It is managed by the Refuge Division of the Louisiana Wild Life and Fisheries Commission. Most of the association is owned by corporations, the school board, and a foundation. A small part is privately owned.

The vegetation is chiefly the Brackish Marsh type (*3*), which is chiefly marsh hay cordgrass and needlegrass rush (fig. 6). The association produces valuable wildlife habitat in addition to furnishing an environment that supports marine life of the Gulf of Mexico. There is no trend toward a change in land use.

Flooding, content of organic matter, wetness, and low strength are the main limitations for most uses. Salinity is a limitation for some uses.

12. Maurepas association

Very poorly drained organic soils of the tidal swamps and soft marshes

This association is on the mainland, in tidal swamps and soft marshes that are flooded by tidewater. It is nearly level. Elevations are less than 2 feet above sea level. Most of the area is flooded much of the time by about 6 inches of water. The area is also subject to occasional deep flooding by storm tides. Tides range up to 10 feet above normal when hurricanes and tropical storms pass over or near the area. Many small lakes and tidal channels are present.

The association makes up about 6 percent of the parish. It is about 85 percent Maurepas soils and 15 percent Lafitte and Delcomb soils.

Maurepas soils have a surface layer of dark-brown organic material 12 inches thick. This is underlain by 90 inches of almost completely decomposed, dark-brown organic material that contains many logs, stumps, and tree roots. The soils are generally too boggy for livestock grazing.

Most of the association is wooded. The stand of commercial timber is sparse and of poor quality and is dying back. About 2,000 acres is in marsh vegeta-

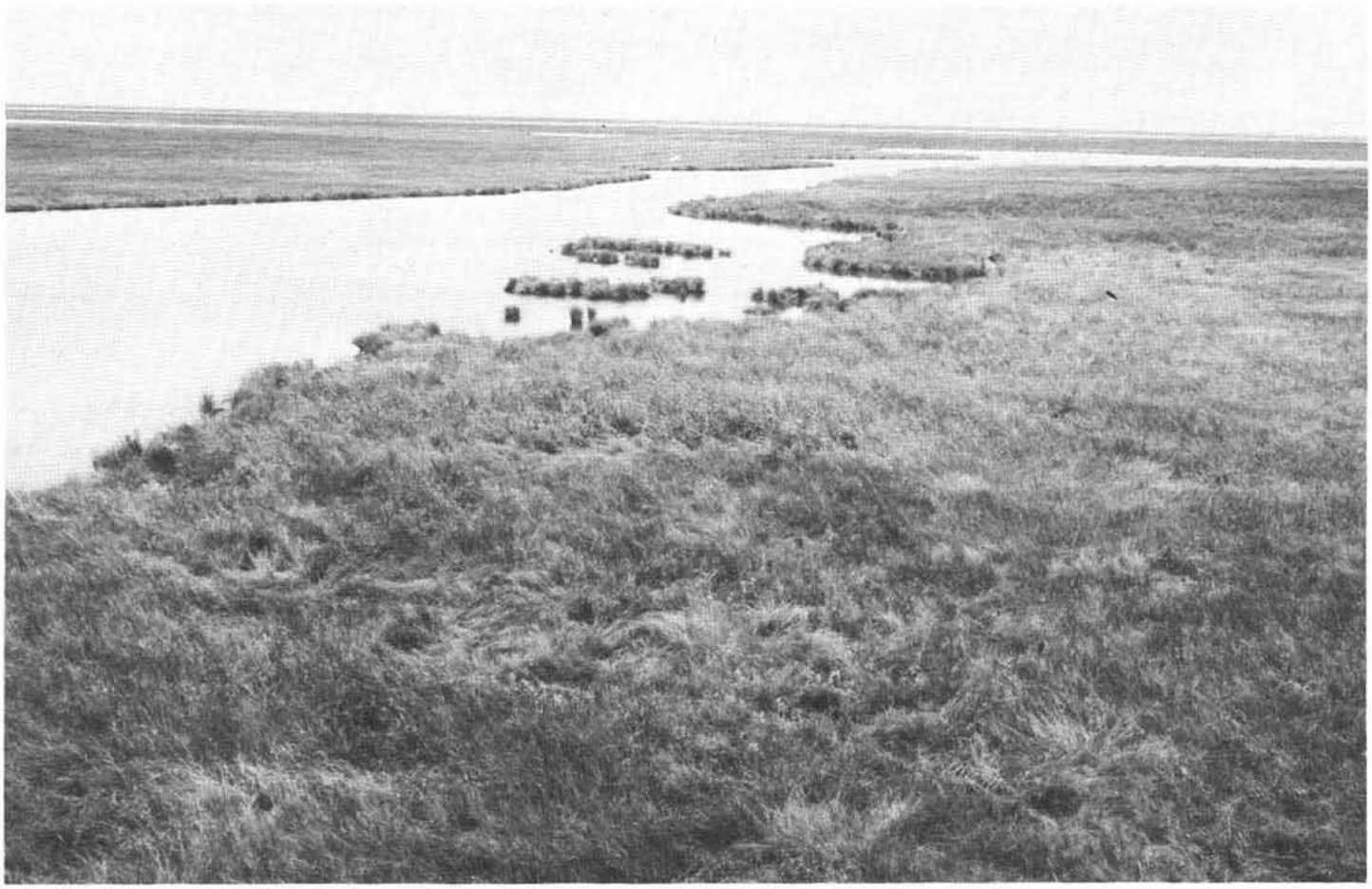

Figure 6.—Brackish marsh vegetation, chiefly marsh hay cordgrass and needlegrass rush, on Lafitte association.

tion—the Intermediate Marsh type (*3*). All the association is used for wildlife habitat (fig. 7). A small part is also used for timber production. Most of the association is owned by corporations. A small part is privately owned.

The association produces valuable wildlife habitat and some timber in addition to furnishing an environment that supports marine life of the Gulf of Mexico. There is no trend toward change in land use.

Flooding, content of organic matter, wetness, and low strength are the main limitations for most uses.

Descriptions of the Soils

In this section the soil series and mapping units in Iberia Parish are described in detail, and the use and management of the soils is discussed. Each soil series is described in detail, and then, briefly, each mapping unit in that series is described. Unless it is specifically mentioned otherwise, it is to be assumed that what is stated about the soil series holds true for the mapping units in that series. Thus, to get full information about any one mapping unit, it is necessary to read both the description of the mapping unit and the description of the soil series to which it belongs.

Figure 7.—Cypress, palmetto, sedges, and other swamp vegetation on Maurepas association.

An important part of the description of each soil series is the soil profile, that is, the sequence of layers from the surface downward to underlying material. Each series contains two descriptions of this profile. The first is brief and in terms familiar to the layman. The second is much more detailed and is for those who need to make thorough and precise studies of soils. Color terms are for moist soil unless otherwise stated. The profile described for the series is representative for mapping units in that series. If a given mapping unit has a profile that differs from the one described for the series, the differences are stated in the description of the mapping unit, or they are apparent in the name of the mapping unit. In the description of each mapping unit are suggestions on how the soil can be managed.

Following the name of each mapping unit is a symbol in parentheses. This symbol identifiies the mapping unit on the detailed soil map. Listed at the end of each description of a mapping unit is the capability unit and woodland suitability group to which the mapping unit has been assigned. The page for the description of each mapping unit can be learned by referring to the "Guide to Mapping Units" at the back of this survey.

The acreage and proportionate extent of each mapping unit are shown in table 1. (*12*) Many of the terms used in describing soils can be found in the Glossary, and more detailed information about the terminology and methods of soil mapping can be obtained from the Soil Survey Manual (*22*).

Alligator Series

Soils of the Alligator series are poorly drained, are very slowly permeable, and have a clayey subsoil. They are on the Bayou Teche part of the alluvial plain. They formed in clayey Mississippi River alluvium.

In a representative profile the surface layer is black clay about 10 inches thick. Below the surface layer is clay mottled with shades of brown.

Most of the acreage is cultivated. A small part is wooded and pastured.

Representative profile of Alligator clay, in a sugarcane field ¾ of a mile northeast of Sugar Mill; Spanish Land Grant sec. 77, T. 12 S., R. 7 E.

Ap1—0 to 3 inches, black (10YR 2/1) clay; strong, very fine, angular blocky structure; friable; very strongly acid; abrupt, wavy boundary.

Ap2—3 to 7 inches, black (10YR 2/1) clay; few, medium, prominent, yellowish-red (5YR 4/8) mottles in root channels and on faces of peds; weak, coarse, angular blocky structure; firm; very strongly acid; abrupt, wavy boundary.

TABLE 1.—*Approximate acreage and proportionate extent of the soils*

Mapping unit	Acres	Percent
Alligator clay	3,952	1.2
Alligator soils, frequently flooded	2,458	.6
Alligator-Galvez complex	813	.2
Andry association	4,669	1.2
Baldwin silty clay loam	18,294	5.0
Calhoun silt loam	1,201	.3
Coteau silt loam	6,134	1.7
Delcomb association	5,251	1.4
Fausse association	17,303	4.7
Fausse-Convent association	19,741	5.5
Fausse soils	45,372	12.4
Frost silt loam	1,632	.4
Frost silt loam, overwash	918	.3
Gallion-Perry complex, gently undulating	4,374	1.2
Galvez silt loam	6,146	1.8
Iberia silty clay loam, frequently flooded	2,389	.7
Iberia silty clay	13,001	3.5
Jeanerette silt loam	54,360	14.8
Jeanerette-Coteau complex, 3 to 8 percent slopes	362	.1
Lafitte association	63,203	17.3
Loreauville silt loam	12,108	3.3
Maurepas association	20,273	5.5
Memphis silt loam, 5 to 8 percent slopes	1,808	.5
Memphis association, hilly	1,264	.3
Newellton-Convent association, frequently flooded	3,815	1.0
Patoutville silt loam	11,482	3.1
Placedo association	7,921	2.2
Scatlake association	21,314	5.8
Sharkey clay	4,090	1.1
Sharkey clay, occasionally flooded	10,726	2.9
Small water areas	11,290	
Large water areas	36,426	
Total	414,080	100.0

A&B—7 to 10 inches, black (10YR 2/1) and light olive-gray (5YR 6/2) clay; common, fine prominent, strong-brown mottles; compound moderate coarse, angular blocky and weak, fine angular blocky structure; firm; few slickensides that do not intersect; very strongly acid; gradual, irregular boundary.

B21g—10 to 22 inches, gray (5Y 6/1) clay; common, fine, prominent, yellowish-brown mottles; compound strong, coarse, angular blocky and weak, fine, angular blocky structure; firm, few slickensides that do not intersect; few cracks filled with black (10YR 2/1) clay; very strongly acid; gradual, wavy boundary.

B22—22 to 60 inches, gray (5Y 6/1) clay; common, fine, prominent, strong-brown mottles; weak, coarse, angular blocky structure; firm; strongly acid.

The A horizon is silt loam, clay, silty clay loam, or mucky silty clay loam 3 to 9 inches thick. It is extremely acid to strongly acid. The B horizon is gray, light olive gray, or olive gray mottled with brown. It is very strongly acid to strongly acid. Between depths of 10 and 40 inches it is 60 to 90 percent clay.

The Alligator soils in this parish are outside the range of the Alligator series in one or more characteristics. In mapping unit Ag the surface layer is black. In mapping units At and Ax, the surface layer is darker colored and the soils are extremely acid in the upper 10 inches and strongly acid between depths of 10 and 24 inches. Use, behavior, and management of all units, however, are similar to those of other Alligator soils.

Alligator soils are associated with Iberia, Sharkey, Baldwin, and Perry soils. They have a thinner dark-colored layer and a more clayey and more acid subsoil than Iberia soils. They are more acid than Sharkey and Perry soils. They are more poorly drained, more acid, and more clayey throughout than Baldwin soils.

Alligator clay (Ag). — This soil is in tracts of 100 to 1,000 acres on low areas of the Bayou Teche part of the alluvial plain. It is level and poorly drained and has a clayey subsoil. Included in mapping are small areas of Sharkey, Iberia, and Galvez soils.

This soil has the profile described as representative of the series. It is sometimes droughty and shrinks and cracks when dry. It is generally moderate in organic-matter and low in available phosphorus, potassium, and calcium. Water and air move through the soil very slowly. Runoff is slow. The soil is wet for long periods late in winter and in spring. It receives runoff from soils in higher areas. The seasonal high water table is at the surface or within a depth of 2 feet during the period December through April. Low areas are occasionally flooded for short periods.

The soil is difficult to plow and can be worked within only a narrow range of moisture content. It shrinks and cracks when dry and becomes cloddy when plowed. Plants sometimes lack adequate moisture during dry periods in summer and fall. Wetness, low strength, and high shrink-swell potential are the main limitations.

Most of the acreage is cultivated. Sugarcane is the principal crop. A small acreage is pastured.

This soil is suited to most of the crops and pasture plants grown in the parish. Suitable crops are sugarcane, rice, corn, peppers, okra, and soybeans. Suitable pasture plants are tall fescue, Pensacola bahiagrass, common bermudagrass, white clover, vetch, southern wild winter peas, and red clover. Drainage and complete fertilization are needed for most crops and pasture. Crop residue management is needed in cultivated areas. Land smoothing and irrigation are needed for rice. Capability unit IIIw-2; woodland suitability group 2w6.

Alligator soils, frequently flooded (At). — The soils of this mapping unit are in tracts of 900 to 1,200 acres in broad depressions in the Bayou Teche part of the alluvial plain. They are level, poorly drained, and frequently flooded and have a clayey subsoil.

The profile of these soils differs from the one described as representative of the series in having a surface layer of mucky silty clay loam in the broad, slightly deeper depressions and of silty clay loam in the shallower depressions. Also, the surface layer is extremely acid, and the underlying material to a depth of about 24 inches is strongly acid.

Included with these soils in mapping are small areas of Alligator clay that is subject to only occasional flooding, small areas of a soil that has an organic surface layer 18 to 40 inches thick, and small areas of a soil that has a dark-colored layer 11 to 24 inches thick.

During storms these soils are flooded with as much as 5 feet of water. The seasonal high water table is at the surface or within a depth of 2 feet. Runoff is very slow. Water and air move through the soils very

slowly. The soils are generally high in organic-matter content and low in available phosphorus, potassium, and calcium. Plants sometimes lack adequate moisture during dry periods in summer and fall. Flooding, wetness, high shrink-swell potential, and low strength are the main limitations.

Most of the acreage is wooded. A moderate acreage is in fresh marsh vegetation (*3*) and is used for cattle range. Paille fine, giant cutgrass, savannah panicum, switchgrass, and alligatorweed are the dominant species.

The soils are not suited to most cultivated crops and pasture plants because of the hazard of flooding. They are suitable for cattle range. For cattle range, the stands of paille fine and savannah panicum should be maintained or increased. Grazing management, brush control, protection from wildfire, and proper location of stockwater, walkways, and fences are needed. Capability unit VIIw-1; woodland suitability group 3w6.

Alligator-Galvez complex (Ax). — The undulating soils of this mapping unit are on narrow parallel ridges and in swales in the Bayou Teche natural levee part of the alluvial plain. Slopes are typically 0 to 3 percent, but are less than 1 percent in the swales. The ridges and swales are crescent shaped and are 100 to 500 feet wide and ½ to 1 mile long. The difference in elevation is about 3 feet. Two tracts of these soils occur in the parish.

This mapping unit is about 60 percent Alligator soil and 40 percent Galvez soil. The poorly drained Alligator soil is in the swales. Its profile differs from the one described as representative of the series in having an extremely acid surface layer of silt loam or silty clay loam. Also, it is strongly acid between depths of 10 and 24 inches. The Galvez soil is on the ridges. Its profile differs from the one described as representative of the series in having a surface layer of loam or silt loam.

Included with these soils in mapping are small areas in swales where the surface layer is black and is 10 to 30 inches thick and small areas on ridges where the surface layer is silty clay loam. Also included are areas of Alligator soils that are occasionally flooded.

The Alligator soil has a seasonal high water table at the surface or within a depth of 2 feet during the period December through April. Plants sometimes lack adequate moisture during day periods in summer and fall. The soil is low in available phosphorus, potassium, and calcium. Water and air move through the soil very slowly. Wetness, high shrink-swell potential, and low strength are the main limitations.

The Galvez soil is somewhat poorly drained and is wet for long periods late in winter and early in spring, but dries out sooner than the Alligator soil after rains. Water and air move through the soil moderately slowly. The seasonal high water table fluctuates between depths of 1½ and 3 feet during the period December through April. Adequate moisture is available to plants in most years. The surface layer is friable and is easily worked. Crusts and plowpans form quickly in cultivated areas. The soil is generally moderately low in organic-matter content, low in available phosphorus and potassium, and medium in available calcium. Wetness and low strength are the main limitations.

Most of the acreage is cultivated. Sugarcane is the principal crop. Corn and soybeans are also grown.

This mapping unit is suited to most of the crops and pasture plants grown in the parish. Suitable crops are sugarcane, corn, peppers, okra, and soybeans. Suitable pasture plants are common bermudagrass and Pensacola bahiagrass. Improved bermudagrass is well suited to the Galvez soil. Tall fescue, white clover, and dallisgrass are well suited to the Alligator soil. Crop residue management, land smoothing, and drainage are generally needed if the soils are cultivated. Extensive earthmoving is required to smooth the surface. Complete fertilization is needed on the Galvez soil. Capability unit IIIw-4; woodland suitability group 2w6 for Alligator soil and 2w5 for Galvez soil.

Andry Series

Soils of the Andry series are saline, very poorly drained, and moderately slowly permeable. They are in firm marshes in the mainland adjacent to the terrace upland and are flooded most of the time. They formed in loamy loess deposits that have subsided below water level.

In a representative profile the surface layer is covered with 12 inches of very dark grayish-brown peat and mucky peat. The surface layer is black mucky silt loam about 6 inches thick. The subsoil is silty clay loam. It is very dark gray to a depth of 26 inches and gray and greenish gray below.

Most of the acreage is in marsh vegetation and is used as wildlife habitat and cattle range.

Representative profile of Andry peat in an area of Andry association, in a marsh 3¾ miles south-southeast of Delcambre, 50 yards west of canal; NE¼SW¼ sec. 21, T. 13 S., R. 5 E., S69 La-23-5, table 8:

O21—12 to 6 inches, very dark grayish-brown (10YR 3/2) peat; about 80 percent fiber, about 50 percent rubbed; massive; nonsticky; mainly a mat of live roots; neutral; gradual wavy boundary.

O22—6 inches to 0, very dark grayish-brown (10YR 3/2) mucky peat; about 60 percent fiber, about 30 percent rubbed; massive; nonsticky; mineral content about 50 percent; slightly acid; gradual, smooth boundary.

A1—0 to 6 inches, black (10YR 2/1) mucky silt loam; about 12 percent fiber rubbed; massive; flows easily between fingers when squeezed and leaves small residue in hand; nonsticky; about 25 percent organic matter; neutral; gradual, smooth boundary.

B1tg—6 to 13 inches, very dark gray (10YR 3/1) silty clay loam; weak, medium subangular blocky structure; very plastic and sticky; neutral; gradual, smooth boundary.

B21tg—13 to 26 inches, very dark gray 10YR 3/1) silty clay loam; many, medium and coarse, prominent, light olive-brown (2.5YR 4/4) mottles; weak, medium, subangular blocky structure; plastic and sticky; few, soft accumulations of ferromanganese; few, thin, patchy clay films; neutral; gradual, smooth boundary.

B22tg—26 to 33 inches, greenish-gray (5GY 6/1) silty clay loam; many, medium and coarse, distinct olive (5Y 5/3) mottles; weak, medium and coarse, subangular blocky structure; plastic and sticky; few concretions of ferromanganese; thin, patchy clay films; neutral; gradual, smooth boundary.

B3g—33 to 60 inches, greenish-gray (5GY 6/1) and gray (N 6/0) silty clay loam; many, coarse, distinct olive (5Y 5/3) mottles; weak, very coarse, prismatic structure; plastic; neutral.

Salinity is moderate to high. The organic material is 8 to 15 inches of very dark grayish-brown, dark grayish-brown, or very dark gray peat, mucky peat, or muck. Typically, it has a live root mat in the upper part. Reaction in the organic material is medium acid to mildly alkaline. The A horizon is black or very dark gray mucky silt loam or mucky silty clay loam 5 to 10 inches thick. It is medium acid to mildly alkaline. The B horizon is neutral to moderately alkaline silt loam or silty clay loam.

Andry soils are associated with Delcomb soils. They have a thinner organic layer than those soils.

Andry association (AY). — The soils of this mapping unit are in firm marshes on the mainland adjacent to terrace uplands. They are level and saline and commonly have a thin, organic surface layer and a loamy subsoil. The elevation is about 2 feet above sea level.

The composition of this unit is more variable than that of most other units in the parish, but it has been controlled well enough that interpretations can be made for the expected use of the soils. The mapping unit is about 75 percent Andry soil and 15 percent partly drained soils that do not have an organic cover over the surface layer. The Andry soil occurs as broad areas. Included in mapping are small areas of spoil deposits along dug channels and small areas of Iberia, Jeanerette, and Delcomb soils.

These soils are subject to shallow flooding by the highest normal tides. They are also subject to occasional deep flooding by storm tides. Tides range up to 10 feet above normal when hurricanes and other tropical storms pass over or near the parish. Small ponds and tidal channels occur in places. The water table is at the surface to about 6 inches above the surface year round.

The soils support livestock grazing but do not support conventional farm equipment. Flooding, excess humus, and wetness are the main limitations. Salinity is a limitation for some uses.

All the acreage is used as wildlife habitat and cattle range. The Intermediate Marsh vegetative type is dominant (*3*). The soils are part of an environment that supports marine life in the Gulf of Mexico. They also provide excellent habitat for muskrat and ducks and native grasses suitable for grazing. Typical plants are marsh hay cordgrass, big cordgrass, olney bulrush, saltmarsh bulrush, seashore paspalum, needlegrass rush, duck millet, and smartweed.

These soils are not suitable for cultivation because of flooding, wetness, and salinity. Use is largely restricted to cattle range or wildlife habitat. Well-managed, low-level weirs for water control, level ditches, controlled burning, and controlled harvest improve the habitat and increase its use by wildlife. For cattle range, the marshhay cordgrass and big cordgrass should be maintained or increased. Grazing management, brush control, protection from wildfire, and proper location of stockwater, walkways, and fences are needed. Capability unit VIIw-2; not placed in a woodland suitability group.

Baldwin Series

Soils of the Baldwin series are poorly drained and very slowly permeable and are clayey in the upper part of the subsoil. They are at intermediate local elevations on the Bayou Teche natural levee part of the alluvial plain. They formed primarily in clayey Mississippi River alluvium.

In a representative profile the surface layer is very dark grayish-brown silty clay loam about 9 inches thick. The upper 19 inches of the subsoil is dark-gray and olive-gray clay that has very dark gray coatings on faces of peds. The lower 34 inches is gray and dark-gray silt loam, silty clay loam, and silty clay.

Most of the acreage is cultivated. A small acreage is pastured or in nonfarm uses.

Representative profile of Baldwin silty clay loam, in a sugarcane field 2 miles east of New Iberia on Louisiana Highway 85, 0.3 mile south on field road, 84 feet west on headland, 15 feet north, 84 feet west of edge of Spanish Land Grant sec. 8, T. 12 S., R. 7 E.

Ap—0 to 9 inches, very dark grayish-brown (10YR 3/2) silty clay loam; moderate, fine, granular structure; friable; slightly acid; abrupt, wavy boundary.

B21t—9 to 17 inches, dark-gray (10YR 4/1) clay; common, fine, distinct, dark yellowish-brown mottles; continuous dark-gray coatings on peds; moderate, medium, subangular blocky structure; firm clay films on most peds; medium acid; gradual, wavy boundary.

B22tg—17 to 28 inches, olive-gray (5Y 4/2) clay; common, fine, faint, brown mottles; moderate, medium and coarse, prismatic structure parting to moderate, medium, subangular blocky; firm; common, thin, continuous clay films on major peds; continuous, very dark gray coatings on peds; few, fine, black concretions of ferromanganese; mildly alkaline; gradual, wavy boundary.

B31tg—28 to 44 inches, dark-gray (5Y 4/1) silty clay loam; common, medium, distinct, dark yellowish-brown (10YR 4/4) mottles; moderate, coarse, prismatic structure parting to coarse, subangular blocky; firm; few, discontinuous clay films on faces of the major peds; mildly alkaline; clear, wavy boundary.

B32tg—44 to 62 inches, gray (5Y 5/1) silty clay; common, medium, distinct, strong-brown (7.5YR 5/8) mottles; weak, coarse, prismatic structure; firm; few, dark-gray films; mildly alkaline; abrupt, smooth boundary.

Cg—62 to 72 inches, gray (5Y 5/1) silt loam; common, medium, distinct, yellowish-brown (10YR 5/8) mottles; massive, friable; mildly alkaline.

The A horizon is very dark grayish-brown or dark grayish-brown silty clay loam 6 to 9 inches thick. It is very strongly acid to slightly acid. The B2 horizon is dark-gray, gray, or olive-gray clay or silty clay mottled with brown. It is 19 to 30 inches thick. It is medium acid to mildly alkaline. The B3 horizon has the same color range as the B2 horizon. It is clay, silty clay, silty clay loam, or silt loam and is neutral to moderately alkaline. The C horizon has the same color and texture range as the B3 horizon.

Baldwin soils are associated with Fausse, Alligator, Sharkey, and Perry soils. They have a lower clay content than any of those soils. They do not have the thick dark surface layer typical of Iberia soils nor the red subsoil typical of Perry soils.

Baldwin silty clay loam (Ba). — This level soil is in tracts of 100 to 500 acres at intermediate elevations on the Bayou Teche natural levee part of the alluvial plain. It is poorly drained and is clayey in the upper part of the subsoil.

Included with this soil in mapping are small areas of Iberia, Galvez, Loreauville, and Alligator soils. Also included are spoil deposits along dug channels that cross the area and a few low areas that are occasionally flooded.

Runoff is slow. Water and air move through the soil very slowly. The soil is wet for long periods late in winter and spring. The seasonal high water table is at the surface or within a depth of 2 feet during the period December through April. The soil is generally moderate in organic-matter content, low in available phosphorus and potassium, and medium in available calcium.

This soil is moderately easy to plow and can be worked throughout a fairly wide range of moisture content. Clods break down on wetting and drying, forming a friable surface mulch. Adequate moisture is available to plants in most years. The soil shrinks and cracks when dry. Wetness, high shrink-swell potential, and low strength are the main limitations.

Most of the acreage is cultivated. Sugarcane is the principal crop. A small acreage is used for pasture and nonfarm uses.

This soil is suited to most of the crops and pasture plants grown in the parish. Suitable crops are sugarcane, rice, corn, peppers, okra, sweet potatoes, and soybeans. Suitable pasture plants are tall fescue, Pensacola bahiagrass, common bermudagrass, dallisgrass, ryegrass, white clover, vetch, southern wild winter peas, and red clover. Drainage and complete fertilization are generally needed for most crops and pasture plants. Crop residue management is needed in cultivated areas. Land smoothing and irrigation are needed for rice. Capability unit IIIw-3; woodland suitability group 2w6.

Calhoun Series

Soils of the Calhoun series are poorly drained, slowly permeable, and loamy throughout. They are in depressed areas in the terrace uplands. They formed in loess.

In a representative profile the surface layer is dark grayish-brown silt loam about 11 inches thick. Below the surface layer is gray silt loam about 13 inches thick. The subsoil, to a depth of 60 inches, is light brownish-gray silty clay loam mottled with shades of brown and black.

Most of the acreage is cultivated. A small part is pastured.

Representative profile of Calhoun silt loam, in a sugarcane field 2,300 feet north of store, 1,000 feet east of Louisiana Highway 89; Spanish Land Grant sec. 47, T. 11 S., R. 5 E.

Ap1—0 to 4 inches, dark grayish-brown (10YR 4/2) silt loam; moderate, fine, granular structure; friable; few fine concretions of ferromanganese; strongly acid; abrupt, wavy boundary.

Ap2—4 to 11 inches, dark grayish-brown (10YR 4/2) silt loam; weak, fine, platy structure or massive; firm; common, fine concretions of ferromanganese; strongly acid; abrupt, wavy boundary.

A2—11 to 24 inches, gray (5Y 6/1) silt loam and grayish-brown (2.5Y 5/2) silty clay loam; many, medium, prominent, yellowish-brown (10YR 5/4, 5/6) mottles; massive; firm; many fine concretions of ferromanganese; 10 percent grayish-brown (2.5Y 5/2) silty clay loam material from the B horizon; strongly acid; abrupt, irregular boundary.

B2tg—24 to 60 inches, light brownish-gray (2.5Y 6/2) silty clay loam; many, medium, prominent, dark yellowish-brown (10YR 4/4) and black (10YR 2/1) mottles; compound weak, coarse, prismatic and weak, medium, angular blocky structure; firm; many fine concretions of ferromanganese; discontinuous, thick clay films on peds and in pores; tongues of gray (10YR 6/1) silt loam A2 horizon material that are 2 to 5 centimeters wide and extend to a depth of 40 inches; medium acid; gradual, wavy boundary.

C—60 to 86 inches, dark-brown (7.5YR 4/4) silt loam; common, medium, distinct, light brownish-gray (2.5Y 6/2) mottles and few, fine, distinct, black and dark-gray mottles; massive; firm; few fine concretions of ferromanganese; few pores, clay films in pores; medium acid.

The Ap horizon is 6 to 11 inches thick. It is strongly acid to medium acid. The A2 horizon is gray, light brownish-gray, or grayish-brown silt loam. It is strongly acid to medium acid. Tongues of A2 horizon material extend into the B2t horizon for 9 to 18 inches. The B2t horizon is light brownish-gray, gray, or grayish-brown silt loam or silty clay loam that has many or common, medium or fine, dark yellowish-brown, yellowish-brown, black, and very dark grayish-brown mottles. The B2t horizon is strongly acid to medium acid.

Calhoun soils are associated with Coteau, Frost, Jeanerette, Memphis, and Patoutville soils. They are more poorly drained and grayer than Coteau, Memphis, and Patoutville soils. They do not have the dark-colored surface layer and dark coatings on peds typical of Frost and Jeanerette soils. They are more acid than Jeanerette soils.

Calhoun silt loam (Ca).—This level soil is in tracts of 20 to 40 acres in depressed areas in the terrace uplands. It is poorly drained and loamy throughout. Included in mapping are areas of Coteau, Patoutville, and Frost soils.

Runoff is slow. Water and air move through the soil slowly. The soil is wet late in winter and early in spring. The seasonal high water table is at the surface or within a depth of 2 feet during the period December through April. Water ponds in depressions after rains. This soil dries out more slowly than most of the surrounding soils. Wetness causes poor aeration and restricts plant root development.

This soil is easy to plow and can be worked throughout a wide range of moisture content, but the surface tends to crust. Plants sometimes lack adequate moisture during dry periods in summer and fall. The soil is generally moderately low in organic-matter content and low in available phosphorus, potassium, and calcium. Wetness is the main limitation.

Most of the acreage is cultivated. Sugarcane is the principal crop. A small acreage is pastured.

This soil is suited to most of the crops and pasture plants grown in the parish. Suitable crops are sugarcane, rice, corn, peppers, okra, sweet potatoes, and soybeans. Suitable pasture plants are white clover, Pensacola bahiagrass, and common bermudagrass. Drainage and complete fertilizers and lime are needed for most crops and pasture. Crop residue management

is needed in cultivated areas. Land smoothing and irrigation are needed for rice. Capability unit IIIw-6; woodland suitability group 2w9.

Convent Series

Soils of the Convent series are loamy, somewhat poorly drained, and moderately permeable. They are on the Atchafalaya Basin Floodway and the Lake Fausse Pointe parts of the alluvial plain. They formed in recent loamy alluvial sediment deposited by the Atchafalaya River.

In a representative profile the surface layer is dark grayish-brown, stratified very fine sandy loam and silt loam about 6 inches thick. Below the surface layer is stratified, grayish-brown and pale-brown very fine sandy loam, silt loam, and loamy very fine sand.

The Convent soils in this parish are mapped only with Fausse and Newellton soils. Most of the acreage is wooded.

Representative profile of Convent very fine sandy loam, in a wooded area of Fausse-Convent association in the Atchafalaya River Floodway, 1 mile east of center of sec. 27, T. 12 S., R. 9 E., on unnamed island, 150 feet northeast of Texas Company pipeline rock dam:

A1—0 to 6 inches, dark grayish-brown (10YR 4/2), stratified very fine sandy loam and silt loam; common, medium, faint grayish-brown (10YR 5/2) mottles; moderate, fine, platy structure; firm; faint bedding planes; worm holes and partly decomposed woody material; mildly alkaline; abrupt, smooth boundary.

C1—6 to 20 inches, grayish-brown (10YR 5/2), stratified loamy very fine sand and silt loam; few, fine, faint, yellowish-brown and dark grayish-brown mottles; weak, fine, platy structure; friable; faint bedding planes; mildly alkaline; clear, smooth boundary.

C2—20 to 60 inches, stratified pale-brown (10YR 6/3) and dark-brown (7.5YR 4/2) silt loam, very fine sandy loam, and loamy very fine sand; many, medium, faint, grayish-brown (10YR 5/2) and dark yellowish-brown (10YR 3/4) mottles; moderate, medium, platy structure; friable; faint bedding planes; partly decomposed woody material; mildly alkaline; slightly effervescent.

The A horizon is dark grayish-brown, dark-brown and pale-brown silty clay loam, silt loam, very fine sandy loam, and loamy very fine sand. It is neutral to mildly alkaline and is 2 to 10 inches thick. The C horizon is stratified dark-brown, grayish-brown, dark grayish-brown, and pale-brown silty clay loam, loam, silt loam, very fine sandy loam, and loamy very fine sand. It is neutral to mildly alkaline.

Convent soils are associated with Fausse and Newellton soils. They are less clayey throughout the profile and better drained than Fausse soils. They do not have the clayey surface layer typical of Newellton soils.

Coteau Series

Soils of the Coteau series are somewhat poorly drained, moderately slowly permeable, and loamy throughout. They are at the highest elevations on the terrace uplands. They formed in loess.

In a representative profile the surface layer is dark grayish-brown silt loam about 5 inches thick. The subsoil is 65 inches thick. The upper 7 inches is dark yellowish-brown silty clay loam mottled with dark brown. The lower 58 inches is brown and dark yellowish-brown silty clay loam and silt loam mottled with shades of brown and gray.

Most of the acreage is cultivated. A small part is in pasture, and a small part is used for nonfarm purposes.

Representative profile of Coteau silt loam, in a pasture 1½ miles northwest of Coteau school and church, 70 feet east of the right-of-way of U.S. 90, 50 feet north of fence; SE¼SE¼NW¼ sec. 36, T. 11 S., R. 5 E.

Ap—0 to 5 inches, dark grayish-brown (10YR 4/2) silt loam; few, fine, faint, light brownish-gray mottles; weak, fine, granular structure; friable; strongly acid; abrupt, wavy boundary.

B21t—5 to 12 inches, dark yellowish-brown (10YR 3/4) silty clay loam; common, medium, faint, dark-brown (10YR 4/3, 7.5YR 4/4) mottles; weak, medium, prismatic structure parting to moderate, medium, subangular blocky; firm; common fine pores; thin, patchy clay films on peds; common, fine, black and brown concretions; medium acid; clear, irregular boundary.

B&A—12 to 22 inches, brown (10YR 5/3) silty clay loam; common, medium, faint, dark yellowish-brown (10YR 3/4) mottles; moderate, coarse and medium, prismatic structure parting to moderate, medium, subangular blocky; firm; about 20 percent of horizontal cross section is brittle; thin, discontinuous clay films on peds and in pores; about 15 percent interfingers 2 to 8 millimeters thick of grayish-brown silt loam (A'2) between prisms; few, medium, dark-brown concretions; medium acid; clear, irregular boundary.

B22t—22 to 43 inches, dark yellowish-brown (10YR 4/4) silty clay loam and light brownish-gray (10YR 6/2) silt loam and silty clay loam in vertical streaks 10 to 30 mm wide; common, medium, distinct, strong-brown (7.5YR 5/6) mottles; moderate, medium and coarse, prismatic structure parting to moderate, medium, subangular blocky; firm; about 30 percent of brownish matrix is brittle; few fine roots inside peds, concentrated roots between peds; common fine and medium pores; distinct, discontinuous clay films on peds and in pores; thin, patchy black stains on peds; medium acid; clear, irregular boundary.

B3t—43 to 70 inches, dark yellowish-brown (10YR 4/4) silt loam; common, medium, distinct, light brownish-gray (10YR 6/2), continuous vertical streaks of silty clay loam 7 to 13 mm wide; weak, coarse, prismatic structure parting to weak, coarse, subangular blocky; friable; many fine and medium pores and voids; thin, continuous gray clay films in pores and voids; medium acid; thin, patchy silt coats on peds; gradual, wavy boundary.

C—70 to 100 inches, dark yellowish-brown (10YR 4/4) silt loam; common, fine, distinct, pale-brown and gray mottles around pores and voids; massive; friable; common fine and medium pores and voids lined with clay films; medium acid.

The A horizon is grayish-brown, dark grayish-brown, very dark grayish-brown, brown, or dark-brown silt loam 4 to 12 inches thick. In places where it is very dark grayish-brown, it is less than 4 to 7 inches thick. It is very strongly acid to medium acid. The B horizon is dark-brown, dark yellowish-brown, brown, or yellowish-brown silty clay loam or silt loam mottled with shades of gray or brown. It is very strongly acid to medium acid. The A part of the B & A horizon is grayish brown, light brownish gray, light gray, or pale brown. The brittle part of the Bt horizon makes up 10 to 40 percent of the horizontal cross section.

Coteau soils are associated with Calhoun, Frost, Jeanerette, Memphis, and Patoutville soils. They are better drained and browner than Calhoun and Frost soils. In contrast with Patoutville soils, they have no red mottles

and are more acid in the lower part of the subsoil. They are lighter colored and more acid than Jeanerette soils. They are more poorly drained and grayer than Memphis soils.

Coteau silt loam (Co). — This soil is in tracts of 20 to 50 acres at the highest local elevations and on escarpments of terrace uplands. It is somewhat poorly drained and is loamy throughout. The gradient is less than 1 to only 2 percent.

Included with this soil in mapping are small areas of Calhoun, Patoutville, and Frost soils. Also included are small areas of soils that are dark brown in the upper part of the subsoil.

Runoff is slow to medium. Water and air move through the soil moderately slowly. The seasonal high water table fluctuates between depths of 1½ and 3 feet during the period December through April. The soil is wet for long periods late in winter and early in spring. The organic-matter content is moderately low, and the content of available phosphorus, potassium, and calcium is low.

This soil is easy to plow and can be worked throughout a wide range of moisture content, but the surface tends to crust. Adequate moisture is available to plants in most years. Wetness and low strength are the main limitations.

Most of the acreage is cultivated. Sugarcane is the main crop. A small acreage is pastured, and some acreage is used for nonfarm purposes.

The soil is suited to most of the crops and pasture plants grown in the parish. Suitable crops are sugarcane, rice, corn, peppers, okra, sweet potatoes, and soybeans. Suitable pasture plants are Pensacola bahiagrass and common bermudagrass. Complete fertilization and lime are needed for most crops and pasture. Crop residue management is needed in cultivated areas. Land smoothing and irrigation are needed for rice. Capability unit IIw-2; woodland suitability group 1w8.

Delcomb Series

Soils of the Delcomb series are saline, very poorly drained, and rapidly permeable. They are in soft marshes in the mainland and are flooded most of the time. They formed in accumlations of herbaceous organic material on loamy loess deposits.

In a representative profile the upper 39 inches is very dark grayish-brown organic material. Below this is black, very dark gray, and greenish-gray silty clay loam.

Most of the acreage is in marsh vegetation, which provides wildlife habitat.

Representative profile of Delcomb peat, in an area of Delcomb association 3 miles southeast of Delcambre, 134 yards east of Poufette Canal; SW¼SW¼ sec. 11, T. 13 S., R. 5 E., S69 La-23-6, tables 8 and 9:

Oi—0 to 3 inches, fibric material (dense mat of live roots).

Oe—3 to 12 inches, very dark grayish-brown (10YR 3/2) hemic material; dark gray (10YR 4/1) pressed and rubbed; about 85 percent fiber, about 30 percent rubbed; massive; nonsticky; many, medium and fine, live roots; dominantly herbaceous fiber; mineral content about 30 percent; slightly acid; gradual, smooth boundary.

Oa1—12 to 33 inches, very dark brown (10 YR 2/2) sapric material; black (10YR 2/1) pressed and rubbed; massive; flows easily between fingers when squeezed and leaves hand empty; nonsticky; common, fine, live roots; about 55 percent mineral content; neutral; gradual, smooth boundary.

Oa2—33 to 39 inches, dark grayish-brown (10YR 4/2) sapric material; black (10YR 2/1) pressed and rubbed; about 65 percent fiber, about 7 percent rubbed; massive; flows easily between fingers when squeezed and leaves small residue in hand; few fine roots; dominantly herbaceous fiber; about 35 percent mineral content; neutral; abrupt, smooth boundary.

IIA11g—39 to 46 inches, black (5Y 2/1) mucky silty clay loam; massive; flows easily between fingers when squeezed and leaves small residue in hand; sticky; many fine roots; mildly alkaline; gradual, smooth boundary.

IIA12g—46 to 52 inches, very dark gray (5Y 3/1) silty clay loam; few, fine, distinct, yellowish-brown mottles; weak, coarse, prismatic structure; will not flow between fingers when squeezed; plastic and sticky; few fine roots; mildly alkaline; gradual, smooth boundary.

IIC1g—52 to 82 inches, greenish-gray (5GY 6/1) silty clay loam; common, medium, distinct, dark-gray (5Y 4/1) mottles; weak, coarse, prismatic structure; will not flow between fingers when squeezed; plastic and sticky; mildly alkaline.

IIC2g—82 to 148 inches, greenish-gray (5GY 6/1) silty clay loam; many, medium, distinct, olive (5Y 4/4) mottles; massive; plastic and sticky; olive (5Y 4/4) mottles increase with increasing depth and become dominant at a depth of 120 inches; moderately alkaline.

Salinity is moderate to high throughout. The organic material is 18 to 50 inches thick and contains thin mineral layers in places. The organic layers are dark grayish brown, black, dark gray, very dark gray, very dark grayish brown, or very dark brown and are slightly acid to moderately alkaline. The IIA horizon is black or very dark gray mucky silty clay loam and silty clay loam. The IIC horizon is very dark gray or greenish-gray silty clay loam or silt loam. Both the IIA and IIC horizons are mildly to moderately alkaline.

Delcomb soils are associated with Andry, Lafitte, and Maurepas soils. They have thicker layers of organic material than Andry soils and thinner layers of organic material than Lafitte and Maurepas soils. They do not have the woody organic material typical of Maurepas soils.

Delcomb association (DE). — The soils of this mapping unit are in the soft marshes of the mainland. They are level, saline soils that are flooded most of the time. They have a moderately thick surface layer of organic material that is underlain by loamy material. The elevation is less than 2 feet above sea level. Tracts range from 1,000 to 3,000 acres.

The composition of this unit is more variable than that of most other units in the parish, but it has been controlled well enough that interpretations can be made for the expected use of the soils. The mapping unit is about 80 percent Delcomb soil.

Included in mapping are small areas of similar soils that are not saline and areas of spoil deposits along dug channels. Also included are small areas of Andry, Lafitte, and Maurepas soils.

The soils are subject to flooding by the highest normal gulf tides. They are also subject to occasional deep flooding by storm tides. Tides range up to 10 feet above normal when hurricanes and tropical storms pass over or near the parish. Small ponds and tidal channels are typical. Water and air move through the

loamy substrata moderately slowly. The water table fluctuates from about 6 inches above the surface to surface level the year round. The soils are generally too soft to support livestock grazing. If drained, the organic material on drying initially shrinks to about half the original thickness and then subsides further as a result of compaction and oxidation. These losses are most rapid during the first 2 years. The material continues to subside at the rate of about 1 inch per year. The lower the water table, the more rapid the loss. Flooding, wetness, organic-matter content, and low strength are the main limitations. Where the soils are drained, salinity and acidity are limitations for some uses.

Most of the acreage provides wildlife habitat. Intermediate and brackish marsh vegetation is dominant (*3*).

These soils produce good habitat for deer, rabbit, geese, muskrat, nutria, duck, alligator, and associated species in addition to furnishing an environment that supports the marine life of the Gulf of Mexico. Vegetation is dense if unburned for several years. The vegetation is dominantly marshhay cordgrass and needlegrass rush along with small amounts of saltmarsh bulrush, olney bulrush, and big cordgrass. In areas of low salinity there is a greater variety of plants. These include marshhay cordgrass, big cordgrass, hairypod cowpea, switchgrass, plumegrass, cattail, sawgrass, bulltongue, olney bulrush, duck millet, smartweed, and alligator weed.

Flooding, wetness, salinity, low strength, and, where drained, subsidence and acidity are limitations that generally make these soils unsuited to commercial crop production and restrict their use to recreation, wildlife, or esthetic purposes. Properly managed low level weirs for water control, level ditches, controlled burning, and in places controlled harvest improve the wildlife habitat. Capability unit VIIIw-1; not placed in a woodland suitability group.

Fausse Series

Soils of the Fausse series are very poorly drained, very slowly permeable, and clayey throughout. They are flooded by freshwater much of the time. They formed in clayey alluvial deposits, mainly in the swamp areas of the alluvial plain.

In a representative profile the surface layer is dark-gray clay about 10 inches thick. The subsoil and underlying material are gray and dark-gray mottled with shades of brown.

Most of the acreage is wooded and is part of the Atchafalaya Basin Floodway. It is used for recreation and wildlife habitat.

Representative profile of Fausse clay, in wooded area of the Fausse association about 2½ miles south of Loreauville and 6¾ miles east of junction of Bayou Teche and the Loreauville Canal, 80 yards north of Loreauville Canal; SW¼NE¼ sec. 9, T. 12 S., R. 8 E.

O2—1 inch to 0, very dark brown (10YR 2/2) muck; moderate, medium, granular structure; friable; many roots, partly decayed woody material; medium acid; abrupt, smooth boundary.

A1—0 to 10 inches, dark-gray (10YR 4/1) clay; common, fine, faint, dark-brown mottles; weak, coarse, prismatic structure; very sticky; slightly acid; gradual, wavy boundary.

B21g—10 to 22 inches, gray (10YR 5/1) clay; many, medium and fine distinct dark-brown mottles; weak, medium, angular blocky structure parting to weak, fine, angular blocky; very sticky; slightly acid; gradual, irregular boundary.

B22g—22 to 31 inches, dark-gray (5Y 4/1) clay; many, medium, prominent, dark-brown (7.5YR 3/2) mottles; weak, medium, subangular blocky structure parting to weak, fine, angular blocky; very sticky; shiny ped faces; neutral; gradual, irregular boundary.

B23g—31 to 46 inches, gray (4Y 5/1) and gray (N 5/0) clay; few, medium, prominent, dark yellowish-brown (10YR 3/4) mottles; weak, medium, subangular blocky structure parting to weak, fine, angular blocky; very sticky; shiny ped faces; neutral; gradual, irregular boundary.

Cg—46 to 60 inches, gray (5Y 5/1) clay; common, medium, distinct, light olive-brown (2.5Y 5/4) mottles and few, medium, prominent, yellowish-red (5YR 4/8) mottles; massive; very sticky; shiny ped faces; mildly alkaline.

The 02 horizon is very dark gray, dark-gray, very dark grayish-brown, black, or very dark brown muck or mucky peat 1 to 4 inches thick. The A horizon is dark-gray or dark grayish-brown mucky clay or clay 4 to 12 inches thick. The 02 and A horizons are medium acid to neutral. The B horizon is gray, dark-gray, greenish-gray, or dark greenish-gray clay or silty clay. It is slightly acid to moderately alkaline. The C horizon is gray, dark-gray, greenish-gray, or dark greenish-gray clay or silty clay. It is neutral to moderately alkaline. In some profiles thin layers of semifluid clay are within 36 inches of the surface.

Fausse soils are associated with Sharkey, Alligator, Iberia, and Convent soils. They do not dry out and crack to so great a depth as Sharkey, Alligator, Iberia, Baldwin, and Perry soils. They have a higher clay content between depths of 10 and 40 inches than Convent soils and are more poorly drained than those soils.

Fausse association (FA). — The soils of this mapping unit are in swamps in the Lake Fausse Pointe area of the alluvial plain. They are nearly level and are clayey throughout. The elevation is dominantly 2 to 4 feet above sea level. Tracts range from 100 to 3,000 acres in size.

The composition of this mapping unit is more variable than that of most other units in the parish, but it has been controlled well enough that interpretations can be made for the expected use of the soils. The mapping unit is about 65 percent Fausse soils on broad level areas. Included in mapping are large areas that have semifluid clay, mucky clay, or muck to a depth of 20 inches or more. Also included are small areas of Sharkey and Fausse soils on low ridges that have been cleared and drained.

Fausse soils have the profile described as representative of the series. They are flooded much of the time by freshwater, and they are wet throughout the year. Water and air move through the soil very slowly. The water table fluctuates from about ½ foot above the surface to 1½ feet below. The organic-matter content is moderate, and the content of available phosphorus, potassium, and calcium is medium. Flooding, wetness, very high shrink-swell potential, and low strength are the main limitations.

Most of the acreage is wooded and used as wildlife habitat. Areas that adjoin cropland along Bayou Teche are being cleared, leveed, and drained by pumping and are used for growing rice and sugarcane. Some areas have been developed for the commercial production of crawfish.

The soils are not suited to cultivated crops or pasture plants unless protected from flooding. Capability unit VIIw-1; woodland suitability group 3w6.

Fausse-Convent association (FC). — This mapping unit of clayey and loamy soils is in broad depressions and on low, narrow natural levees on the Atchafalaya Basin Floodway of the alluvial plain. It is under 2 to 8 feet of freshwater most years from December through June and receives annual deposits of sediments from floodwater of the Atchafalaya River. The elevation is dominantly 2 to 4 feet above sea level. Slopes are less than 1 percent. Tracts range from 160 to 2,000 acres in size.

The composition of this mapping unit is more variable than that of any other unit in the parish, but it has been controlled well enough that interpretations can be made for the expected use of the soils. The mapping unit is about 50 percent Fausse soil and 25 percent Convent soil. Included in mapping are small areas of Newellton soils and a small area of soils that have a loamy surface layer and a clayey subsoil. Also included are clayey soils that have a gray or dark-brown surface layer and a subsoil that is mottled with olive gray, reddish gray, brown, dark reddish brown, and dark brown.

The Fausse soil is mainly in swamps between ridges of natural levees. Its profile differs from the one described as representative of the series in having a 5- to 8-inch surface layer of dark-gray or dark grayish-brown, semifluid clay mottled with yellowish red. The soil is wet throughout the year. The water table fluctuates from 6 inches above to 6 inches below the surface. The soil is generally moderate in organic-matter content and high in available phorphorus, potassium, and calcium. Generally there is a complete ground cover of water hyacinth and delta arrowhead. The woodland is mostly black willow. The flooding, wetness, and low strength of both soils and the very high shrink-swell potential of the Fausse soil are the main limitations.

The Convent soil is on low ridges of natural levees. It has the profile described as representative of the series. The water table fluctuates between depths of 1½ and 3 feet. The soil is generally moderately low in content of organic matter and high in available phosphorus, potassium, and calcium. Generally there is a complete ground cover of bushes, sedges, and vines. The woodland is eastern cottonwood, American sycamore, and green ash on the oldest deposits and black willow on the most recent deposits. Flooding is the main limitation.

All the acreage is part of the Atchafalaya Basin Floodway. It is used for woodland, recreation, and wildlife habitat. Without flood protection, the soil is not suited to crops or pasture. Capability unit VIIw-1; woodland suitability group 3w6 for Fausse soil and 1w5 for Convent soil.

Fausse soils (FE). — This mapping unit of nearly level soils is mainly in swamps in the Atchafalaya Basin Floodway of the alluvial plain. It is flooded much of the time by freshwater. From December through June it is continuously under 2 to 8 feet of water. The elevation is dominantly 2 to 4 feet above sea level. The soils are clayey throughout and occur in a single delineation in a broad area in the eastern part of the Atchafalaya Basin Floodway. They receive annual deposits of clayey sediment from the Atchafalaya River.

The composition of this mapping unit is more variable than that of most other units in the parish, but it has been controlled well enough that interpretations can be made for the expected use of the soils. The mapping unit is about 75 percent Fausse soil, 15 percent soils in low depressions that are semifluid to a depth of 20 inches, and 5 percent Sharkey soil on low ridges.

In large areas the profile of the Fausse soil differs from the one described as representative of the series in having a surface layer of semifluid, mucky clay. The water table fluctuates within a depth of 1½ feet at all times. The soil is high in content of organic matter and high in available phosphorus, potassium, and calcium. Generally there is a complete ground cover of water hyacinth and delta arrowhead. The woodland is mostly baldcypress and water tupelo. Flooding wetness, very high shrink-swell potential, and low strength are the main limitations.

All the acreage is part of the Atchafalaya Basin Floodway. It is also used for woodland, recreation, and wildlife habitat. Unless protected from flooding, it is not suited to crops or pasture. This soil is the main source of natural habitat for deep-water crawfish. Capability unit VIIw-1; woodland suitability group 3w6.

Frost Series

Soils of the Frost series are poorly drained, slowly permeable, and loamy throughout. They are in depressions in the terrace uplands and on the foot slopes of the salt domes of the parish. They formed in loess.

In a representative profile the surface layer is very dark grayish-brown and black silt loam about 12 inches thick. Below this is gray silt loam about 4 inches thick. The subsoil is gray silty clay loam mottled with yellowish red.

Most of the acreage is cultivated. A small part is wooded or pastured, and a small acreage is used for homesites, recreation, and other nonfarm purposes.

Representative profile of Frost silt loam, in a sugarcane field three-fourths of a mile north of Coteau, 210 feet east of drainage ditch, 90 feet south of field road; NE¼SW¼ sec. 25, T. 11 S., R. 5 E.

Ap—0 to 6 inches, very dark grayish-brown (10YR 3/2) silt loam; moderate, fine, granular structure; friable; very strongly acid; abrupt, wavy boundary.

A1—6 to 12 inches, black (10YR 2/1) silt loam; few, fine and medium, distinct, gray (10YR 5/1) mottles; compound weak, medium, prismatic and weak, medium, platy structure; firm, discontinuous, distinct clay films on faces of peds and in pores; few fine concretions

of ferromanganese; very strongly acid; abrupt, irregular boundary.

A2g—12 to 16 inches, gray (10YR 5/1) silt loam; many, fine, faint, gray mottles and few, fine, distinct, black mottles; weak, coarse, prismatic structure; firm; patchy, thin clay films on faces of peds and in pores; very strongly acid; abrupt, irregular boundary; pockets to a depth of 24 inches in places.

B2tg—16 to 60 inches, gray (5Y 6/1) silty clay loam; common, coarse, prominent, yellowish-red (5YR 4/8) mottles of concretionary material; moderate, medium and coarse, prismatic structure; firm; peds coated with black and gray; discontinuous, distinct clay films on faces of peds and in pores; medium acid; gradual, smooth boundary.

C—60 to 90 inches, dark yellowish-brown (10YR 4/4) silt loam; common, fine, distinct, gray mottles; black in vertical root-like channels; massive; firm; slightly acid.

The Ap horizon is 5 to 11 inches thick and very strongly acid to strongly acid. The A1 horizon is black, very dark gray, or very dark grayish brown, is 6 to 16 inches thick, and is very strongly acid to strongly acid. The A2 horizon is 2 to 6 inches thick. It extends 4 to 18 inches into the B horizon as tongues that are 1 to 6 inches wide. The A2 horizon is very strongly acid to strongly acid. The B horizon is gray or light brownish gray. It is very strongly acid to medium acid.

The Frost soils in mapping unit Fr are outside the range of the Frost series because they have a darker A horizon. Use, behavior, and management, however, are the same as for other Frost soils.

Frost soils are associated with Coteau, Calhoun, Jeanerette, Patoutville, and Memphis soils. They are more poorly drained and grayer than Coteau, Patoutville, Jeanerette, and Memphis soils. They are more acid than Jeanerette soils. They have a darker colored surface layer and darker coatings on faces of peds than Calhoun soils.

Frost silt loam (Fr). — This nearly level, poorly drained soil is loamy throughout. It is in drainageways and depressions in the terrace uplands. Tracts range from 20 to 80 acres and are narrow. Included in mapping are small areas of Calhoun and Jeanerette soils.

This soil has the profile described as representative of the series. Runoff is slow. Water and air move through the soil slowly. The soil is wet for much of the time late in winter and early in spring. The seasonal high water table is at the surface or within a depth of 2 feet during the period December through April. Most areas are occasionally flooded for short periods.

This soil is easy to plow and can be worked throughout a fairly wide range of moisture content. It is generally moderate in organic-matter content and low in available phosphorus, potassium, and calcium. Adequate moisture is available to plants in most years. Flooding and wetness are the main limitations.

Most of the acreage is cultivated. Sugarcane is the principal crop. A small acreage is pastured, and a small acreage is wooded.

This soil is suited to most of the crops and pasture plants grown in the parish. Suitable crops are sugarcane, rice, corn, peppers, okra, and soybeans. Suitable pasture plants are Pensacola bahiagrass, white clover, and common bermudagrass. Drainage, complete fertilization, and lime are needed for most crops and pastures. Crop residue management is needed when the soil is used for row crops. Land smoothing and irrigation are needed for rice. Capability unit IIIw-6; woodland suitability group 2w9.

Frost silt loam, overwash (Fs). — This poorly drained soil is loamy throughout. It is on the foot slopes of salt domes of the parish. Slopes are 1 to 5 percent. Tracts range from 40 to 500 acres.

Included with this soil in mapping is a small acreage of a soil that has a surface layer of silt loam 20 to 40 inches thick. Also included are small areas of Jeanerette, Coteau, and Calhoun soils and small areas of soils that contain more sand than is typical of Frost soils.

The profile of this soil differs from the profile described as representative of the series in having a surface layer of brownish silt loam overwash about 15 inches thick. Runoff is medium. Water and air move through the soil slowly. The soil is wet for much of late winter and spring. The seasonal high water table is at the surface or within a depth of 2 feet during the period December through April. The soil receives large amounts of runoff and seepage from higher areas.

The soil is easy to plow and can be worked throughout a fairly wide range of moisture content. A surface crust and a plowpan form when the soil is cultivated continuously. The soil is generally moderately low in organic-matter content and low in available phosphorus, potassium, and calcium. Adequate moisture is available to plants in most years. Wetness is the main limitation.

Most of the acreage is used for homesites, recreation, and other nonfarm purposes. A small acreage is cultivated, and a small acreage is pastured. Peppers is the main crop.

This soil is too sloping to be suited to sugarcane and irrigated rice. It is suited to soybeans, peppers, corn, okra, and sweet potatoes. Suitable pasture plants are Pensacola bahiagrass, white clover, and common bermudagrass. Diversions and grassed waterways are needed when the soil is cultivated. Complete fertilization and lime are needed for most crops and pastures. Contour farming and crop residue management are needed for erosion control when the soil is used for row crops. Capability unit IIIw-7; woodland suitability group 2w9.

Gallion Series

Soils of the Gallion series are well drained, moderately permeable, and loamy throughout. They are parallel and adjacent to Bayou Teche on the alluvial plain. They formed in loamy Red River alluvium.

In a representative profile the surface layer is dark-brown silt loam about 9 inches thick. The upper 10 inches of the subsoil is reddish-brown silty clay loam, and the lower 35 inches is reddish-brown silt loam.

Most of the acreage is used for homesites and other nonfarm purposes. A small part is cultivated, and a small part is pastured.

Representative profile of Gallion silt loam, in a pasture in an area of Gallion-Perry complex, gently undulating, 0.8 mile north of Loreauville; north corner of Spanish Land Grant sec. 79, T. 11 S., R. 7 E.

Ap—0 to 9 inches, dark-brown (7.5YR 4/4) silt loam; weak, fine, subangular blocky structure; firm; medium acid; abrupt, wavy boundary.

B21t—9 to 19 inches, reddish-brown (2.5YR 4/4) silty clay loam; compound moderate, medium, prismatic and moderate, medium, subangular blocky structure; very firm; few, patchy, reddish-brown coatings of silt on faces of peds; continuous clay films on faces of peds; few fine concretions of ferromanganese; medium acid; abrupt, wavy boundary.

B22t—19 to 33 inches, reddish-brown (5YR 4/4) silt loam; lenses of dark reddish-brown (2.5YR 3/4) silty clay about 4 inches thick; compound moderate, coarse, prismatic and moderate, medium, subangular blocky structure; firm; continuous clay films on faces of peds; common fine concretions of ferromanganese; moderately alkaline; abrupt, wavy boundary.

B3t—33 to 54 inches, reddish-brown (5YR 4/4) silt loam; weak, coarse, subangular blocky structure; firm; discontinuous clay films on ped faces; common fine concretions of ferromanganese; moderately alkaline; clear, smooth boundary.

C—54 to 66 inches, yellowish-red (5YR 4/6) silt loam; weak, fine, platy structure; firm; bedding planes; few fine concretions of ferromanganese and lime; moderately alkaline; slightly effervescent.

The A horizon is dark brown, reddish brown, or dark reddish brown and is 6 to 11 inches thick. It is very strongly acid to medium acid. The B horizon is dark reddish brown, yellowish red, and reddish brown. It is generally stratified silt loam, very fine sandy loam, loam, and silty clay loam below a depth of 19 inches. The B horizon is medium acid to moderately alkaline.

Gallion soils are associated with Perry, Galvez, and Baldwin soils. They are better drained and redder than those soils. They do not have the clayey subsoil typical of Perry and Baldwin soils.

Gallion-Perry complex, gently undulating (Ga).—The soils of this mapping unit are on narrow parallel ridges and in swales adjacent and parallel to Bayou Teche on the alluvial plain. Slopes are mostly 1 to 3 percent. The soils occur in two large tracts.

The mapping unit is about 70 percent Gallion soils and 20 percent Perry soils. Included in mapping are small areas of moderately well drained soils that have a clayey subsoil, small areas of Perry soils that are frequently flooded, and a few areas of soils that have slopes of 3 to 8 percent. On about 30 percent of the acreage the ridges and swales have been smoothed.

The Gallion soil is on ridges that are 100 to 200 feet wide and 2 to 3 feet higher than the swales. Water and air move through the soil moderately fast. The seasonal high water table is generally more than 5 feet below the surface the year round.

The Gallion soil is easy to plow and can be worked throughout a fairly wide range of moisture content. It is generally moderately low in organic-matter content and medium in available phosphorus, potassium, and calcium. Adequate moisture is available to plants in most years. The surface tends to crust. Low strength is a limitation for some uses.

The Perry soil is in swales that are generally 50 to 100 feet wide. Water and air move through the soil very slowly. The soil is wet for long periods during winter and spring. The seasonal high water table is at the surface or within a depth of 2 feet during the period December through April.

The Perry soil is moderately difficult to plow, but can be worked throughout a fairly wide range of moisture content. It is generally moderately low in organic-matter content and low in available phosphorus and potassium. Available calcium is generally medium. The soil shrinks and cracks when dry. Plants sometimes lack adequate moisture during dry periods in summer and fall. Wetness, low strength, and high shrink-swell potential are the main limitations.

Most of the acreage is used for homesites and other nonfarm purposes. A small acreage is cultivated, and a small acreage is pastured. Sugarcane is the principal crop.

The soils are suited to most of the crops and pasture plants grown in the parish. Suitable crops are sugarcane, corn, peppers, okra, soybeans, and sweet potatoes. Suitable pasture plants are tall fescue, common bermudagrass, Pensacola bahiagrass, white clover, southern wild winter pea, and vetch. Land smoothing or drainage on Perry soils and land smoothing and erosion control on the Gallion soils are needed if the area is cultivated. Complete fertilization is needed for most crops and pastures. Crop residue management is needed in cultivated areas. Drainage is needed for improved pasture on Perry soils. Capability unit IIIw-5; woodland suitability group 2o4 for Gallion soil and 2w6 for Perry soil.

Galvez Series

Soils of the Galvez series are somewhat poorly drained, moderately slowly permeable, and loamy throughout. They are at the highest local elevations on the Bayou Teche natural levee part of the alluvial plain. They formed in loamy Mississippi River alluvium.

In a representative profile the surface layer is mainly dark grayish-brown silt loam about 9 inches thick. The upper 12 inches of the subsoil is grayish-brown silty clay loam mottled with shades of brown. The lower 39 inches is grayish-brown and olive-gray silt loam mottled with shades of brown.

Most of the acreage is cultivated. A large acreage is used for homesites and other nonfarm purposes.

Representative profile of Galvez silt loam, in a sugarcane field 3 miles east of Loreauville at Mestayer, 500 feet north of highway, 150 feet south of split ditch; Spanish Land Grant sec. 39, T. 11 S., R. 8 E.

Ap1—0 to 6 inches, dark grayish-brown (10YR 4/2) silt loam; strong, fine, granular structure; friable; concretions of ferromanganese; medium acid; abrupt, wavy boundary.

Ap2—6 to 9 inches, grayish-brown (10YR 5/2) silt loam; moderate, coarse, platy structure; firm; dark brown on faces of peds; few fine concretions of ferromanganese; medium acid; abrupt, wavy boundary.

B21t—9 to 14 inches, grayish-brown (10YR 5/2) silty clay loam; many, fine, distinct, dark yellowish-brown and strong-brown mottles; moderate, coarse, prismatic structure; firm; few fine concretions of ferromanganese; thick, continuous clay films on faces of peds; medium acid; gradual, wavy boundary.

B22t—14 to 21 inches, grayish-brown (2.5Y 5/2) silty clay loam; many, fine, distinct, dark-brown mottles; moderate, medium, prismatic structure; firm; few

fine concretions of ferromanganese; thick, continuous clay films on faces of peds; medium acid; gradual, wavy boundary.

B23t—21 to 34 inches, grayish-brown (2.5Y 5/2) silt loam; common, fine, distinct, dark yellowish-brown mottles; moderate, coarse, prismatic structure; firm; few fine concretions of ferromanganese; thick, continuous clay films on faces of major peds; slightly acid; gradual, wavy boundary.

B3tg—34 to 60 inches, olive-gray (5Y 5/2) silt loam; common, fine, distinct, dark yellowish-brown mottles; moderate, coarse, prismatic structure; firm; gray coatings on faces of peds; few fine concretions of ferromanganese; distinct, continuous clay films on faces of major peds; neutral.

The A horizon is silt loam or loam 5 to 14 inches thick. It is very strongly acid to neutral. The upper part of the Bt horizon is silty clay loam or loam. It is strongly acid to mildly alkaline. The lower part is silt loam or very fine sandy loam. It is neutral to mildly alkaline.

Galvez soils are associated with Baldwin, Iberia, Loreauville, Gallion, and Perry soils. They are better drained than Baldwin, Iberia, and Perry soils. They do not have the clayey subsoil typical of Baldwin, Iberia, and Perry soils. They do not have the reddish color typical of Gallion soils. They do not have the very dark gray or black A horizon typical of Loreauville soils.

Galvez silt loam (Gv). — This nearly level, somewhat poorly drained soil is loamy throughout. It is at the highest local elevations on the Bayou Teche natural levee part of the alluvial plain. Tracts range from 100 to 500 acres. Included with this soil in mapping are small areas of Baldwin, Loreauville, and Gallion soils.

This soil has the profile described as representative of the series. Water and air move through the soil moderately slowly. The soil is wet for long periods, mostly late in winter and early in spring. The seasonal high water table fluctuates between depths of 1½ and 3 feet during the period December through April.

This soil is easy to plow and can be worked throughout a wide range of moisture content. It is generally moderately low in organic-matter content, low in available phosphorus and potassium, and medium in available calcium. Adequate moisture is available to plants in most years. A surface crust and a plowpan form readily in cultivated areas. Wetness and low strength are the main limitations.

Most of the acreage is cultivated. Sugarcane is the principal crop. A large acreage is used for homesites and other nonfarm purposes.

This soil is suited to most of the crops and pasture plants grown in the parish. Suitable crops are sugarcane, rice, corn, peppers, okra, sweet potatoes, and soybeans. Suitable pasture plants are coastal bermudagrass, common bermudagrass, Pensacola bahiagrass, and white clover. Drainage and crop residue management are needed for most crops and pastures. Land smoothing and irrigation are needed for rice. A plowpan can be broken if the soil is deep plowed or chiseled. Capability unit IIw-1; woodland suitability group 2w5.

Iberia Series

Soils of the Iberia series are poorly drained and very slowly permeable and have a clayey subsoil. They are at intermediate local elevations on the Bayou Teche natural levee part of the alluvial plain and in low areas on the terrace uplands. They formed in clayey Mississippi River alluvium.

In a representative profile the surface layer is black silty clay about 17 inches thick. The subsoil is dark grayish-brown and dark-gray clay mottled with shades of brown.

Most of the acreage is cultivated. A small acreage is wooded, a small acreage is pastured, and a small acreage is used for nonfarm purposes.

Representative profile of Iberia silty clay, in a sugarcane field approximately 5 miles east of New Iberia, on Louisiana Highway 87, 1.8 miles east of junction with Louisiana Highway 320, 1.3 miles north on access road to oil well, 66 feet west of Texaco well No. 35 on headland; Spanish Land Grant sec. 26, T. 12 S., R. 7 E.

Ap1—0 to 5 inches, black (10YR 2/1) silty clay; strong, fine, granular structure; friable; slightly acid; abrupt, wavy boundary.

Ap2—5 to 17 inches, black (10YR 2/1) silty clay; weak, coarse, angular blocky structure; very firm; neutral; abrupt, irregular boundary.

B21g—17 to 37 inches, dark grayish-brown (2.5Y 4/2) clay; many, fine, distinct, olive-brown mottles and common, fine, faint, dark-gray mottles; moderate, coarse, prismatic structure parting to moderate, medium, subangular blocky; very firm; many, small, shiny pressure faces; few large slickensides that do not intersect; moderately alkaline; gradual, wavy boundary.

B22g—37 to 48 inches, dark-gray (5Y 4/1) clay; common, medium, prominent, brown (7.5YR 4/4) mottles; weak, coarse, prismatic structure parting to moderate, medium, subangular blocky; very firm; moderately alkaline; gradual, wavy boundary.

B3g—48 to 72 inches, dark-gray (5Y 4/1) clay; common medium, prominent, brown (7.5YR 4/4) mottles; weak, coarse, prismatic structure; very firm; moderately alkaline; gradual, smooth boundary.

Cg—72 to 75 inches, gray (5Y 5/1) silty clay loam; common, fine, distinct, yellowish-brown mottles; massive; firm; moderately alkaline.

The A horizon is black or very dark gray silty clay or silty clay loam 12 to 22 inches thick. It is slightly acid to mildly alkaline. The Bg horizon is dark grayish-brown, light brownish-gray, olive-gray, light olive-gray, dark-gray, or gray clay or silty clay. It has mottles in shades of olive and brown. It is neutral to moderately alkaline. Some soils contain concretions of calcium carbonate. The B3 and C horizons are clay, silty clay loam, or silt loam.

Iberia soils are associated with Alligator, Baldwin, Sharkey, Galvez, and Loreauville soils. They are more alkaline than Alligator soils. They have a thicker dark-colored surface layer than Baldwin and Sharkey soils. They are more clayey throughout than Loreauville soils.

Iberia silty clay loam, frequently flooded (Ia). — This level soil has a clayey subsoil and is frequently flooded by freshwater. It is in low areas on the terrace uplands. Tracts range from 100 to 500 acres.

The profile of this soil differs from the one described as representative of the series in having a silty clay loam surface layer 12 to 18 inches thick.

This soil is wet for long periods. The water table is at the surface or within a depth of 1½ feet the year round. Water and air move through the soil very slowly. The organic-matter content is high. Available phosphorus and potassium is low, and available cal-

cium is medium. Flooding, wetness, high shrink-swell potential, and low strength are the main limitations.

Most of the acreage is wooded, dominantly with baldcypress and water tupelo. The woodland provides wildlife habitat. Some areas have been developed for the commercial production of crayfish.

Without flood protection, this soil is not suited to crops or most pasture plants. Common bermudagrass is a suitable pasture plant, but flooding and wetness severely restrict grazing time. Capability unit Vw-1; woodland suitability group 3w6.

Iberia silty clay (Ib). — This nearly level, poorly drained soil is clayey throughout. It is at intermediate local elevations on the Bayou Teche natural levee part of the alluvial plain. Tracts range from 100 to 500 acres.

Included with this soil in mapping are small areas of Alligator, Baldwin, Loreauville, and Sharkey soils. Included west of Bayou Teche are large areas where the subsoil is mainly clayey but is underlain by loamy material at depths ranging from 27 to 40 inches. Also included are spoil deposits along dug channels that cross the parish and low areas that are occasionally flooded.

This soil has the profile described as representative of the series. Runoff is slow. Water and air move through the soil very slowly. The soil is wet for long periods late in winter and in spring. The seasonal high water table is at the surface or within a depth of 2 feet during the period December through April.

The soil is hard to plow and can be worked within only a narrow range of moisture content. It becomes cloddy when plowed. Clods break down on wetting and drying, forming a friable, granular surface mulch. The soil is generally moderate in organic-matter content, low in available phosphorus and potassium, and high in available calcium. Plants sometimes lack adequate moisture during dry periods. The soii shrinks and cracks when dry. Wetness, high shrink-swell potential, and low strength are the main limitations.

Most of the acreage is cultivated. Sugarcane is the principal crop. A small acreage is used for pasture, and a small acreage is used for nonfarm purposes.

This soil is suited to most of the crops and pasture plans grown in the parish. Suitable crops are sugarcane, rice, peppers, okra, and soybeans. Suitable pasture plants are tall fescue, common bermudagrass, dallisgrass, white clover, vetch, southern wild winter peas and red clover. Drainage and crop residue management are needed in cultivated areas. Complete fertilization is needed for most crops and pastures. Land smoothing and irrigation are needed for rice. Capability unit IIIw-1; woodland suitability group 2w6.

Jeanerette Series

Soils of the Jeanerette series are somewhat poorly drained, moderately slowly permeable, and loamy. They are in low areas and on escarpments of terrace uplands. They formed in loess.

In a representative profile the surface layer is black silt loam about 14 inches thick. The subsoil is dark-gray and grayish-brown silty clay loam to a depth of 36 inches. Below this it is grayish-brown and olive-gray silt loam mottled with shades of gray and olive brown. It contains many hard concretions of calcium carbonate.

Most of the acreage is cultivated. A large part is used for homesites and other nonfarm purposes. A small part is in pasture.

Representative profile of Jeanerette silt loam, in a field of sugarcane 2 miles west of New Iberia, one-fourth mile north of Highway 675, one-fourth mile east of headland, 100 feet west of fence corner, 25 feet north of headland; NW¼NW¼ sec. 16, T. 12 S., R. 6 E.

Ap1—0 to 8 inches, black (10YR 2/1) silt loam; strong, very fine, granular structure; friable; few fine concretions of ferromanganese; neutral; abrupt, wavy boundary.

Ap2—8 to 14 inches, black (10YR 2/1) silt loam; weak, medium, subangular blocky structure; firm; few fine concretions of ferromanganese; neutral; abrupt, wavy boundary.

B21t—14 to 24 inches, dark-gray (10YR (4/1) silty clay loam; compound weak, medium, prismatic and strong, medium, subangular blocky structure; firm; black coatings on peds; thick, continuous clay films on peds; few medium concretions of calcium carbonate; few fine concretions of ferromanganese; moderately alkaline; gradual, wavy boundary.

B22tca—24 to 29 inches, grayish-brown (2.5Y 5/2) silty clay loam; compound weak, medium, prismatic and strong, fine, subangular blocky structure; firm; dark-gray coatings on peds; many concretions of calcium carbonate; distinct, continuous clay films on peds; few fine concretions of ferromanganese; moderately alkaline; gradual, wavy boundary.

B23tca—29 to 36 inches, grayish-brown (2.5Y 5/2) silty clay loam; many, fine, distinct, dark-gray and light olive-brown mottles; moderate, medium, prismatic structure; firm; ped faces partly dark gray; many coarse concretions of calcium carbonate; thin, discontinuous clay films; common fine concretions of ferromanganese; moderately alkaline; abrupt, wavy boundary.

B24t—36 to 44 inches, grayish-brown (2.5Y 5/2) silt loam; many, fine, distinct, light olive-brown and few, faint, gray mottles; compound strong, coarse, prismatic and weak, fine, prismatic structure; firm; ped faces partly gray; thin, discontinuous clay films; common fine concretions of ferromanganese; moderately alkaline; abrupt, wavy boundary.

B3tg—44 to 60 inches, olive-gray (5Y 5/2) silt loam; common, fine, distinct, light olive-brown mottles; compound moderate, coarse, prismatic and weak, fine, prismatic structure; firm; ped faces partly gray; distinct, discontinuous clay films; common fine concretions of ferromanganese; moderately alkaline.

The Ap horizon is black or very dark gray silt loam 7 to 18 inches thick. It is slightly acid to mildly alkaline. The upper part of the Bt horizon is black, very dark gray, or dark gray. The lower part is grayish brown, olive gray, or light brownish gray mottled with brown. The Bt horizon is slightly acid to moderately alkaline and is 1 to 10 percent fine to very coarse concretions of calcium carbonate. It is silt loam and silty clay loam.

Jeanerette soils are associated with Patoutville, Calhoun, Coteau, and Frost soils. They are darker in the surface layer than Patoutville soils. They are darker and less acid than Calhoun and Coteau soils. They are less acid than Frost soils.

Jeanerette silt loam (Ja). — This somewhat poorly drained, moderately slowly permeable soil is loamy

throughout. It is on low areas of terrace uplands. The gradient is less than 1 percent. Tracts range from 1,000 to 10,000 acres in size.

Included with this soil in mapping are small areas of Patoutville and Frost soils. Also included are small areas of soils that have a moderately alkaline surface layer, and ponded areas 1 to 2 acres in size of poorly drained soils.

This soil has the profile described as representative of the series. Runoff is slow. Water and air move through the soil moderately slowly. The soil is wet much of the time late in winter and in spring. The seasonal high water table fluctuates between depths of 1 foot and 2½ feet during the period December through April.

This soil is easy to plow and can be worked throughout a fairly wide range of moisture content. It is generally moderate in organic-matter content, low in available phosphorus and potassium, and high in available calcium. Adequate moisture is available to plants in most years. Wetness and low strength are the main limitations.

Most of the acreage is cultivated. Sugarcane and rice are the principal crops. A large part of the acreage is used for homesites and other nonfarm purposes. A small part is in pasture.

This soil is suited to most of the crops and pasture plants grown in the parish. Suitable crops are sugarcane, rice, corn, peppers, okra and soybeans. Suitable pasture plants are Pensacola bahiagrass, improved bermudagrass, common bermudagrass, tall fescue, white clover, southern wild winter peas, and vetch. Drainage and complete fertilization are needed for most crops and pastures. Crop residue management is needed in cultivated areas. Land smoothing and irrigation are needed for rice. Capability unit IIw-3; woodland suitability group 2w5.

Jeanerette-Coteau complex, 3 to 8 percent slopes (Jn). — The somewhat poorly drained and moderately well drained soils of this mapping unit are on escarpments of terrace uplands. They are loamy throughout. The escarpment occurs as two tracts 4 to 6 miles long and 200 to 400 feet wide.

The mapping unit is about 60 percent Jeanerette soils and 30 percent Coteau soils. Included in mapping are small areas of Frost, Alligator, Calhoun, and Memphis soils. Also included are small areas of soils that are similar to Jeanette soils but do not have concretions of carbonate in the subsoil.

The Jeanerette soil is on the lower part of the slope; its profile differs from the one described as representative of the series in having a surface layer of slightly acid silt loam about 18 inches thick and a subsoil that is dark gray and light brownish gray. Water and air move through the soil moderately slowly. The soil is wet much of the time late in winter and in spring. The seasonal high water table fluctuates between depths of 1 foot and 2½ feet during the period December through April.

This Jeanerette soil is easy to plow and can be worked throughout a fairly wide range of moisture content. It is generally moderate in organic-matter content, low in available phosphorus and potassium, and high in available calcium. Adequate moisture is available to plants in most years. Wetness and low strength are the main limitations.

The Coteau soil is on the upper part of the slope. The seasonal high water table fluctuates between depths of 1½ and 3 feet during the period December through April.

This Coteau soil is easy to plow and can be worked throughout a wide range of moisture content, but the surface tends to crust. The soil is generally moderately low in organic-matter content and low in available phosphorus, potassium, and calcium. Adequate moisture is available to plants in most years. Wetness and low strength are the main limitations.

Most of the acreage is used for homesites and other nonfarm purposes. A small acreage is used for crops and pasture. Corn is the main crop.

This mapping unit provides some of the best residential sites in the parish. Because the slope is 3 to 8 percent, the soils are not well suited to sugarcane or rice. Suitable crops are corn, peppers, okra, sweet potatoes, and soybeans. Suitable pasture plants are Pensacola bahiagrass, common bermudagrass, improved bermudagrass, tall fescue, white clover, southern wild winter peas, and vetch. Tall fescue, however, is not well suited to the Coteau soil. Contour farming is needed to control runoff and reduce erosion. Crop residue management is needed in cultivated areas. Complete fertilization is needed for most crops and pasture. Capability unit IIIe-1; woodland suitability group 2w5 for Jeanerette soil and 1w8 for Coteau soil.

Lafitte Series

Soils of the Lafitte series are organic, very poorly drained, and rapidly permeable. They are in soft marshes in the mainland and Marsh Island and are flooded most of the time. They are saline. They formed in thick accumulations of herbaceous organic material.

In a representative profile the upper 16 inches is dark-brown organic material. Below this is 116 inches of very dark grayish-brown, dark reddish-brown, very dark gray, and black, almost completely decomposed, semifluid organic material. The underlying material is clay.

Most of the acreage is in marsh vegetation and provides wildlife habitat.

Representative profile of Lafitte peat, in an area of Lafitte association in a marsh 2½ miles south-southeast of Avery Island, 1000 feet north of Intracoastal Waterway, 2½ miles east of Bayou Petite Anse, 100 yards southeast of unnamed bayou, northwest part of T. 14 S., R. 6 E., S69 La-23-4, tables 8 and 9:

Oe—0 to 16 inches, dark-brown (10YR 4/3) hemic material; about 44 percent fiber, 34 percent rubbed; massive; nonsticky; many live roots; herbaceous fiber; about 24 percent mineral content; slightly acid; gradual, smooth, boundary.

Oa1—16 to 53 inches, very dark grayish-brown (10YR 3/2) sapric material; very dark brown (10YR 2/2)

pressed or rubbed; about 39 percent fiber, about 6 percent rubbed; massive; nonsticky; many live roots; sodium pyrophosphate color (10YR 5/3); dominantly herbaceous fiber; about 45 percent mineral content; strong odor of sulphide after treatment with dilute hydrochloric acid; neutral; gradual, smooth boundary.

Oa2—53 to 63 inches, black (10 YR 2/1) sapric material; 44 percent fiber, about 2 percent rubbed; massive; nonsticky; few roots; sodium pyrophosphate color (10YR 6/3); dominantly herbaceous fiber; about 27 percent mineral content; neutral; strong odor of sulphide after treatment with dilute hydrochloride acid; gradual, smooth boundary.

Oa3—63 to 90 inches, very dark gray (10YR 3/1) sapric material; 30 percent fiber, about 1 percent rubbed; massive; nonsticky; dominantly herbaceous fiber; about 47 percent mineral content; neutral; gradual, smooth boundary.

Oa4—90 to 132 inches, dark reddish-brown (5YR 3/2) sapric material; about 20 percent fiber, less than 5 percent rubbed; massive; nonsticky; dominantly woody fiber; about 38 percent mineral content; common fragments of wood; neutral; gradual, smooth boundary.

IICg—132 to 138 inches, dark-gray (5Y 4/1) clay; massive; firm and compact.

Salinity is moderate to high. The organic material is 52 to 144 inches thick. To a depth of 16 inches it is dark brown, black, very dark gray, very dark grayish brown, or dark gray. This layer is slightly acid to moderately alkaline. The rubbed fiber content is 1 to 35 percent. Below a depth of 16 inches the material is black, very dark brown, very dark gray, very dark grayish brown, dark brown, or dark grayish brown. It is slightly acid to moderately alkaline. The rubbed fiber content is 1 to 10 percent. The mineral content is 30 to 55 percent. The IIC horizon is clay or silty clay.

Lafitte soils are associated with Delcomb, Maurepas, Placedo, and Scatlake soils. They have a thicker layer of organic material than Delcomb soils. They do not have the woody organic material typical of Maurepas soils. They are dominantly organic material throughout the profile, whereas Scatlake and Placedo soils are dominantly clayey.

Lafitte association (LA). — The soils of this mapping unit are in soft marshes in the mainland and in Marsh Island. They are level, are saline, and have thick layers of organic material. They are flooded most of the time. The elevation is dominantly less than 2 feet above sea level.

The composition of this unit is more variable than that of most other units in the parish, but it has been controlled well enough that interpretations can be made for the expected use of the soils. The mapping unit is about 70 percent Lafitte soils and closely similar soils that contain thin mineral layers. Included in mapping are areas of soils that have a thin surface layer containing sulfidic material. Also included are small areas of Delcomb, Scatlake, and Maurepas soils and spoil deposits along dug channels.

These soils are subject to shallow flooding by the highest normal tides. They are also subject to occasional deep flooding by storm tides. Tides range to as much as 10 feet above normal when hurricanes and tropical storms pass over or near the parish. There are many small ponds and tidal channels. The water table fluctuates from about 6 inches above the surface to the surface the year round. The soils are generally too boggy for livestock grazing. Spoil deposits along dug channels are sometimes used for cattle range. These soils have high subsidence potential. If drained, the organic material on drying shrinks to about half the original thickness, and the soil subsides further because of compaction. These losses are most rapid during the first 2 years. If the soil is drained, it continues to subside at the rate of about 1 inch per year. The lower the water table, the more rapid the loss. Water and air move through the loamy or clayey substratum moderately slowly. Flooding, organic-matter content, wetness, and low strength are the main limitations. Salinity is a limitation for some uses.

Most of the acreage provides wildlife habitat. These soils produce habitat for deer, rabbit, geese, muskrat, nutria, duck, alligator, and associated species, in addition to furnishing an environment that supports marine life of the Gulf of Mexico. Vegetation is dense if unburned for several years. Intermediate and brackish marsh vegetation is dominant (*3*). The vegetation is dominantly marshhay cordgrass and needlegrass rush and small amounts of salt marsh bulrush, olney bulrush, switchgrass, big cordgrass, saltgrass, and hairypod cowpea.

Wetness, flooding, salinity, low strength, and subsidence potential are the main limitations. These soils are not suited to commercial production of most plants. They are restricted mainly to recreation, wildlife habitat, or esthetic purposes. Low level weirs for water control, level ditches, controlled burning, and in places controlled harvest improve wildife habitat. Capability unit VIIIw-1; not placed in a woodland suitability group.

Loreauville Series

Soils of the Loreauville series are somewhat poorly drained, moderately slowly permeable, and loamy. They are at intermediate local elevations on the Bayou Teche natural levee part of the alluvial plain. They formed in loamy Mississippi River alluvium.

In a representative profile the surface layer is very dark gray silt loam about 8 inches thick. The upper 16 inches of the subsoil is grayish-brown silty clay loam that has very dark gray coatings on faces of peds. The next 14 inches is grayish-brown silt loam. The lower part of the subsoil is olive-gray loam.

Most of the acreage is cultivated. A small acreage is pastured, and a small acreage is used for homesites and other nonfarm purposes.

Representative profile of Loreauville silt loam, in a sugarcane field about 2 miles northeast of Loreauville, one-fourth mile east of Louisiana Highway 345; sec. 101, T. 11 S., R. 7 E.

Ap—0 to 8 inches, very dark gray (10YR 3/1) silt loam; weak, medium, granular structure; friable; few, fine, black concretions; mildly alkaline; abrupt, smooth boundary.

B21t—8 to 24 inches; grayish brown (2.5Y 5/2) silty clay loam that has patchy, very dark gray coatings on faces of peds; common, medium, distinct, very dark grayish-brown (10YR 3/2) mottles; weak, coarse, prismatic structure parting to moderate, medium, subangular blocky; firm; few, fine, black concretions; about 5 percent concretions of calcium carbonate as much as 1 inch in diameter:; thick, nearly continuous,

clay films on faces of peds; calcareous in spots; mildly alkaline; gradual, wavy boundary.

B22t—24 to 38 inches, grayish-brown (2.5Y 5/2) silt loam; many, medium, distinct, light olive-brown (2.5Y 5/4) mottles; weak, coarse, prismatic structure parting to weak, medium, subangular blocky; firm; thin, nearly continuous clay films on faces of peds; few nodules of calcium carbonate; mildly alkaline; clear, wavy boundary.

B3tg—38 to 60 inches, olive-gray (5Y 5/2) loam; many, coarse, distinct, light olive-brown (2.5Y 5/4) mottles; weak, coarse, prismatic structure; firm; thin, patchy, clay films on faces of peds; mildly alkaline.

The Ap horizon is black or very dark gray silt loam 5 to 10 inches thick. It is slightly acid to mildly alkaline. The B horizon is neutral to moderately alkaline. The B2 horizon is silt loam or silty clay loam. The B3 horizon is olive-gray or gray loam, very fine sandy loam, or silt loam.

Loreauville soils are associated with Galvez, Iberia, and Baldwin soils. They have a darker colored surface layer than Galvez soils. They do not have the clayey subsoil typical of Baldwin and Iberia soils.

Loreauville silt loam (Lo). — This nearly level, somewhat poorly drained loamy soil is at intermediate local elevations on the Bayou Teche natural levee part of the alluvial plain. Tracts range from 100 to 500 acres.

Included with this soil in mapping are small areas of Galvez, Baldwin, and Iberia soils and small areas of similar soils that have a thicker dark-colored surface layer. Also included are some low areas that are occasionally flooded.

Runoff is slow. Water and air move through the soil moderately slowly. The seasonal high water table fluctuates between depths of 1 foot and 2½ feet during the period December through April.

The soil is easy to plow and can be worked throughout a fairly wide range of moisture content. It is moderate in organic-matter content, low in available phosphorus and potassium, and high in available calcium. Adequate moisture is available to plants in most years. Wetness and low strength are the main limitations.

Most of the acreage is cultivated. Sugarcane is the principal crop. A small acreage is in pasture, and a small acreage is used for homesites and other nonfarm purposes.

The soil is suited to most of the crops and pasture plants grown in the parish. Suitable crops are sugarcane, rice, corn, peppers, okra, and soybeans. Suitable pasture plants are Pensacola bahiagrass, improved bermudagrass, common bermudagrass, tall fescue, white clover, southern wild winter peas, and vetch. Drainage and complete fertilization are needed for most crops and pastures. Crop residue management is needed in cultivated areas. Land smoothing and irrigation are needed for rice. Capability unit IIw-3; woodland suitability group 1w5.

Maurepas Series

Soils of the Maurepas series are very poorly drained, rapidly permeable, and organic. They are in tidal swamps and soft marshes in the mainland. They formed in thick accumulations of woody organic material.

In a representative profile the organic material is 102 inches thick. The upper 12 inches is dark brown. Below this is 90 inches of almost completely decomposed dark-brown organic material that contains many wood fragments, logs, and stumps. The underlying material is silty clay.

Most of the acreage is wooded. A small acreage is in marsh vegetation.

Representative profile of Maurepas muck, in an area of Maurepas association in a swamp 3¾ miles south of Lydia, 1 mile north of junction of Stump Bayou and Little Valley Canal, 200 feet west of canal; NE¼SE¼ sec. 47, T. 13 S., R. 7 E., S69 La-23-3, table 8:

Oa1—0 to 12 inches, dark-brown (7.5YR 3/2) sapric material; dark reddish-brown (5YR 3/2) pressed or rubbed; about 50 percent fiber, about 7 percent rubbed; weak, fine, granular structure; nonsticky; many live roots; dominantly woody fiber; fine, partly decomposed fragments of wood; about 30 percent mineral content; after exposure to air for 15 minutes color changes to very dark gray (10YR 3/1); medium acid; gradual, smooth boundary.

Oa2—12 to 27 inches, dark-brown (7.5YR 3/2) sapric material; dark reddish-brown (5YR 3/2) pressed or rubbed; about 8 percent fiber, about 1 percent rubbed; weak, fine and medium granular structure; squeezes easily between fingers; nonsticky; common roots; dominantly woody fiber; common, partly decomposed logs, stumps, and fragments of wood; about 35 percent mineral content; few fragments of charcoal; slightly acid; gradual, smooth boundary.

Oa3—27 to 102 inches, dark-brown (7.5YR 3/2) sapric material; dark reddish-brown (5YR 3/2) pressed or rubbed; about 15 percent fiber, about 5 percent rubbed; weak, coarse, granular structure; squeezes easily between fingers; nonsticky; common roots; dominantly woody fiber; many logs and fragments of wood in varying degrees of decomposition; about 40 percent mineral content; slightly acid; gradual, smooth boundary.

IICg—102 to 108 inches, greenish-gray (5GY 5/1) silty clay; massive; squeezes easily between fingers; few partly decomposed fragments of wood; neutral.

Salinity is low to moderate. The organic material is 51 to more than 120 inches thick. The upper 12 inches is dark brown or dark reddish brown and has a rubbed fiber content of 2 to 10 percent. Mineral content is 20 to 30 percent. Below a depth of 12 inches the organic material is dark brown, dark grayish brown, or dark reddish brown and has a rubbed fiber content of 1 to 10 percent. Mineral content is 25 to 40 percent. The IIA and IIC horizons are silty clay loam, silty clay, or clay.

Maurepas soils are associated with Lafitte and Delcomb soils. They contain many woody fragments that do not occur in the Lafitte and Delcomb soils.

Maurepas association (MA). — The soils of this mapping unit have a thick layer of organic material that contains many logs, stumps, and fragments of wood. They are level and occur as broad areas in tidal swamps and soft marshes in the mainland. They are flooded much of the time with about 6 inches of water. These soils occur in one tract. The elevation is less than 2 feet above sea level.

The composition of this unit is more variable than that of most other units in the parish, but it has been controlled well enough that interpretations can be made for the expected use of the soils. The mapping unit is about 90 percent Maurepas soils. Included in mapping are small areas of Delcomb and Lafitte soils.

These soils are subject to shallow flooding by the high normal gulf tides. They are also subject to occasional deep flooding by storm tides. Tides range up to 10 feet above normal when hurricanes and tropical storms pass over or near the parish. There are many small ponds and tidal channels. The water table fluctuates from about 6 inches above the surface to 6 inches below the surface the year round. The soils are too boggy for livestock grazing. They have high subsidence potential. If drained, the organic material on drying shrinks to about half the original thickness, and the soil subsides further because of compaction. Under drainage, it continues to subside at the rate of about 1 inch per year. The lower the water table, the more rapid the loss. If drained, the soils become extremely acid, and the surface becomes a maze of logs, stumps, and roots. Flooding, organic-matter content, wetness, and low strength are the main limitations.

Most of the acreage is wooded. A small part is soft marsh. The wooded areas are dominantly poor quality baldcypress and red maple. The marsh areas are in intermediate marsh vegetation (*3*). These soils are used mostly for wildlife. They produce habitat for deer, rabbit, black bear, squirrel, raccoon, mink, ibis, crane, wood duck, alligator, and associated species, in addition to furnishing an environment that supports marine life of the Gulf of Mexico. Since the original timber harvest, most of the area has not revegetated to trees of commercial quality. Most of the woodland is dying back. In the depressions and marshes of Maurepas soils, the vegetation is marshhay cordgrass, needlegrass rush, olney bulrush, sawgrass, bulltongue, cattail, smart weed, duck millet, and alligatorweed.

Wetness, flooding, low strength, and subsidence potential are the main limitations. These soils are not suited to commercial production of most plants. They are restricted mainly to recreation, wildlife habitat, or esthetic purposes. Low level weirs for water control, controlled burning, and in places controlled harvest improve wildlife habitat in the marshes. Capability unit VIIIw-1; not placed in a woodland suitability group.

Memphis Series

Soils of the Memphis series are well drained, moderately permeable, and loamy throughout. They are on salt domes. They formed in loess.

In a representative profile the surface layer is dark-brown silt loam about 5 inches thick. The upper 17 inches of the subsoil is dark-brown silty clay loam. The lower 23 inches is dark-brown silt loam. The underlying material is dark-brown and yellowish-brown silt loam.

Most of the acreage is wooded. A small part is cultivated.

Representative profile of Memphis silt loam, 5 to 8 percent slopes, in a sugarcane field on Weeks Island, 0.9 mile south of Warehouse Bayou bridge on Highway 83, 0.2 mile northeast on field road, 120 feet north in field; Spanish Land Grant sec. 48, T. 14 S., R. 7 E., S69 La-23-11, table 8:

Ap—0 to 5 inches, dark-brown (7.5YR 4/2) silt loam; weak, fine, granular structure; friable; strongly acid; abrupt, wavy boundary.

B2t—5 to 22 inches, dark-brown (7.5YR 4/4) silty clay loam; compound strong, coarse, prismatic and moderate, medium, subangular blocky structure; firm; patchy reddish-brown coatings on faces of peds; continuous, distinct, clay films on faces of peds; strongly acid; gradual, irregular boundary.

B3t—22 to 45 inches, dark-brown (7.5YR 4/4) silt loam; weak, medium and coarse, prismatic structure; firm; patchy, dark-brown faces of peds; distinct, patchy clay films on faces of peds; strongly acid; gradual, irregular boundary.

C1—45 to 69 inches, dark-brown (7.5YR 4/4) silt loam; weak, coarse, prismatic structure; firm; thin, patchy clay films in voids and on faces of peds; strongly acid; gradual, irregular boundary.

C2—69 to 84 inches, yellowish-brown (10YR 5/4) silt loam; massive; firm; thin, patchy clay films in voids; strongly acid.

The A horizon is dark brown, brown, dark grayish brown, or dark yellowish brown. It is 3 to 14 inches thick. It is strongly acid to slightly acid. The B2t horizon is dark brown or dark yellowish brown. It is very strongly acid to strongly acid. The B3 horizon is dark brown, brown, or yellowish brown. It is very strongly acid to strongly acid. In some profiles the faces of peds in the B2 horizon are thinly coated with gray, pale-brown, or brown silt.

Memphis soils are associated with Frost, Coteau, and Calhoun soils. They are better drained and browner than those soils.

Memphis silt loam, 5 to 8 percent slopes (Me). — This well-drained soil is loamy throughout. It is on the salt domes. Slopes are 5 to 8 percent. Tracts range from 100 to 500 acres.

Included with this soil in mapping are small areas of Coteau, Calhoun, and Frost soils. Also included are small areas of clayey and sandy outcrops.

This soil has the profile described as representative of the series. Runoff is medium. Water and air move through the soil at a moderate rate. The seasonal high water table is below a depth of 6 feet the year round. The soil erodes easily unless protected by a plant cover. In many areas the original topsoil has eroded, leaving the upper part of the subsoil exposed, and a few shallow gullies have formed.

The soil is easy to plow and can be worked throughout a wide range of moisture content, but the surface tends to crust. Adequate moisture is available to plants in most years. Organic-matter content is generally moderate in cultivated areas. Available phosphorus, potassium, and calcium are low. Slope affects the use of some farm equipment. Low strength is the main limitation.

Most of the acreage is wooded and is used mainly for recreation, homesites, and other nonfarm purposes. A small part is cultivated. Sugarcane is the principal crop.

This soil provides one of the best residential building sites in the parish. Because of slope and the hazard of erosion, the soil is not well suited to crops. Suitable crops are corn, peppers, okra, sweet potatoes, and soybeans. Sugarcane is grown, but is not well suited. Suitable pasture plants are bahiagrass, common bermudagrass, improved bermudagrass, ball clover, arrowleaf clover, and crimson clover. Contour farming, crop residue management, minimum tillage, stripcropping or

terraces, and grassed waterways are needed for erosion control when the soil is cultivated. Complete fertilization and lime are needed for most crops and pasture. Capability unit IIIe-1; woodland suitability group 1o7.

Memphis association, hilly (MH). — The soils of this mapping unit are in tracts of 200 to 500 acres on the steepest parts of the salt domes. Slopes are dominantly 8 to 12 percent, but range up to 24 percent.

The composition of this unit is more variable than that of most other units in the parish, but it has been controlled well enough that interpretations can be made for the expected use of the soils.

The mapping unit is about 75 percent Memphis soils. Included in mapping are areas where the slope is less than 8 percent and areas where it is more than 24 percent. Also included on Weeks Island, in the valley at Sandy Bottom Pond, is 140 acres of well-drained soils that are sandy throughout and have slopes of 3 to 5 percent. Also included is a small acreage that is mostly steep, gullied loamy, sandy, and clayey material exposed and mixed by erosion and by salt dome movement.

Memphis soils have the profile described as representative of the series. Water and air move through the soil at a moderate rate. Runoff is rapid. The seasonal high water table is below a depth of 6 feet the year round. The soils erode easily if disturbed, unless protected by a plant cover.

The soils can be worked throughout a wide range of moisure content. Organic-matter content is generally moderate in uncultivated areas. The content of available phosphorus, potassium, and calcium is low. Adequate moisture is available to plants in most years. Low strength and slope are the main limitations.

Most of the acreage is wooded and is used mainly for recreation, homesites, wildlife habitat, and other nonfarm purposes. The soils are too steep to be suited to crops. Complete fertilization and lime are needed on pasture. Suitable pasture plants are bahiagrass, common bermudagrass, improved bermudagrass, ball clover, arrowleaf clover, and crimson clover. Capability unit VIe-1; woodland suitability group 1o7.

Newellton Series

Soils of the Newellton series are somewhat poorly drained and slowly permeable. They are on the Lake Fausse Pointe part of the alluvial plain and are frequently flooded by freshwater. They formed in Red River and Mississippi River alluvium.

In a representative profile the surface layer is about 3 inches of dark-brown clay mottled with gray. Below this is dark reddish-gray clay to a depth of 15 inches. The underlying material to a depth of 72 inches is stratified brownish and grayish very fine sandy loam, silt loam, clay, and loamy very fine sand.

Most of the acreage is wooded.

Representative profile of Newellton clay, in an area of Newellton-Convent association, frequently flooded, in a woodland 0.6 mile northeast of Lake Fausse Pointe, 100 feet north of pipeline canal; T. 12 S., R. 8 E.

O1—1 inch to 0, partly decayed leaves and twigs.

A1—0 to 3 inches, dark-brown (7.5YR 4/2) clay; common, fine, prominent, gray mottles; moderate, medium, subangular blocky structure; firm; slightly acid; abrupt, irregular boundary.

B2—3 to 9 inches, dark reddish-gray (5YR 4/2) clay; gray (5YR 5/1) coatings on faces of peds; moderate, medium, subangular blocky structure; firm; neutral; calcareous; abrupt, smooth boundary.

C—9 to 15 inches, dark reddish-gray (5YR 4/2), grayish-brown (10YR 5/2), and dark-brown (7.5YR 4/2) clay; strong, medium, platy structure; firm; moderately alkaline; calcareous; abrupt, smooth boundary.

IIC1—15 to 33 inches, gray (10YR 5/1), dark-brown (7.5YR 4/4), and brown /7.5YR 4/4, very fine sandy loam and loamy very fine sand; weak, thin, platy structure; firm; moderately alkaline; abrupt, smooth boundary.

IIC2—33 to 66 inches, brown (7.5YR 5/4), dark-brown (7.5YR 4/4), reddish-brown (5YR 4/3), and gray (10YR 5/1) clay, silt loam, and very fine sandy loam; weak, thin, platy structure; firm; stratification and bedding planes present; moderately alkaline; calcareous.

IIIC—66 to 72 inches, reddish-brown (5YR 4/3) and dark greenish-gray (5GY 4/1) clay; firm; moderately alkaline; calcareous.

Depth to the loamy IIC horizon is 14 to 20 inches. The A horizon is dark-brown, dark gray, or very dark gray clay or silty clay 1 to 5 inches thick. It is slightly acid to neutral. The B horizon is dark reddish-gray, dark-brown, or brown clay or silty clay mottled with gray. It is slightly acid to moderately alkaline. The C horizon is dark reddish-gray, dark-brown, grayish-brown, and dark grayish-brown clay or silty clay. It is neutral to moderately alkaline. The IIC horizon is gray, dark-brown, brown, and reddish-brown layers of very fine sandy loam, loamy very fine sand, and silt loam. In places, thin layers of clay are in the IIC horizon.

The Newellton soils in this parish are outside the range of the Newellton series because they have thin reddish layers. Use, behavior, and management, however, are the same as for other Newellton soils.

Newellton soils are associated with Convent soils. They are more clayey in the upper part than those soils.

Newellton-Convent association, frequently flooded (NC). — This mapping unit of nearly level, clayey and loamy soils is on the Lake Fausse Pointe part of the alluvial plain. It is on natural levees and low areas between abandoned distributary channels. It is protected from flooding of the Atchafalaya River by the system of levees of the Atchafalaya Basin Floodway. It is frequently flooded, however, by local runoff.

The composition of this unit is more variable than that of most other units in the parish, but it has been controlled well enough that interpretations can be made for the expected use of the soils. The mapping unit is about 55 percent Newellton soils and 15 percent Convent soils. Included in mapping are small areas of Fausse soils and small areas on high ridges that are seldom flooded.

Newellton soils are in low areas between natural levees. Runoff is very slow. About 80 percent of the area is frequently flooded by local runoff. The remaining area is flooded most of the time. The water table fluctuates between depths of 6 inches and 2 feet the year round. Water and air move through Newellton soils slowly. Organic-matter content is medium. The content of available phosphorus, potassium, and calcium is high. Flooding, high shrink-swell potential, and low strength are the main limitations.

Convent soils are on ridges of natural levees. They are in narrow bands along the many channels in the area. Their profile differs from the one described as representative of the series in having a surface layer of dark-brown silty clay loam 12 inches thick. Runoff is very slow. Water and air move through the soil at a moderate rate. The water table fluctuates between depths of 1½ and 3 feet during the period December through April. The soil is occasionally flooded for short periods. Organic-matter content is moderately low. The content of available phosphorus, potassium, and calcium is high. Flooding is the main limitation.

Most of the mapping unit is wooded and used mainly for recreation and wildlife habitat. The soils on the highest ridges that are seldom flooded are used for hunting and fishing campsites. The area is accessible only by boat. It is mostly owned by the State of Louisiana. Without flood protection, these soils are not suited to crops or to most pasture plants. Common bermudagrass can be grown in the less frequently flooded areas. Capability unit Vw-3; woodland suitability group 3w6 for Newellton and 1w5 for Convent.

Patoutville Series

Soils of the Patoutville series are somewhat poorly drained, slowly permeable, and loamy. They are at intermediate and high local elevations on the terrace uplands. They formed in loess.

In a representative profile the surface layer is dark grayish-brown silt loam about 8 inches thick. The subsoil extends to a depth of 58 inches. The upper 8 inches is dark grayish-brown silty clay loam mottled with shades of red and brown. The lower 42 inches is grayish-brown and light olive-gray silt loam mottled with shades of brown. The underlying material is grayish-brown silt loam.

Most of the acreage is cultivated. A small acreage is pastured, and a small acreage is used for homesites and other nonfarm purposes.

Representative profile of Patoutville silt loam, in a sugarcane field 3 miles southwest of Olivier, 0.15 mile southeast of road junction, 180 feet south of headland, 96 feet west of powerline pole No. 5760; SW¼ sec. 13, T. 13 S., R. 7 E.

Ap1—0 to 4 inches, dark grayish-brown (10YR 4/2) silt loam; strong, fine, granular structure; very friable; concretions of ferromanganese; very strongly acid; abrupt, wavy boundary.

Ap2—4 to 8 inches, dark grayish-brown (10YR 4/2) silt loam; moderate, medium, platy structure; firm; medium acid; abrupt, wavy boundary.

B21t—8 to 16 inches, dark grayish-brown (10YR 4/2) silty clay loam; common, fine, prominent, yellowish-red mottles and many, fine, distinct, yellowish-brown mottles; compound moderate, medium, prismatic and moderate, medium, subangular blocky structure; firm; thick, continuous clay films on faces of peds; neutral; gradual, wavy boundary.

B22t—16 to 32 inches, grayish-brown (2.5Y 5/2) silt loam; many, fine, prominent, yellowish-brown mottles; moderate, coarse, prismatic structure; firm; thick, continuous clay films on faces of peds and in pores; neutral; gradual, wavy boundary.

B3tg—32 to 58 inches, light olive-gray (5Y 6/2) silt loam; many, fine, distinct, yellowish-brown mottles; weak, coarse, prismatic structure; firm; thick, continuous, dark-gray clay films in vertical root channels; discontinuous, distinct clay films on faces of peds; neutral; gradual, wavy boundary.

Cg—58 to 80 inches, grayish-brown (2.5Y 5/2) silt loam; many, medium, prominent, dark yellowish-brown (10YR 4/4) mottles; massive; neutral.

The A horizon is 6 to 16 inches thick and very strongly acid to medium acid. The B21t horizon is dark grayish brown, grayish brown, or pale brown and is 4 to 13 inches thick. It has yellowish-red, red, yellowish-brown, or dark yellowish-brown mottles. Faces of peds are dark grayish brown or very dark grayish brown. The B21t horizon is medium acid to neutral. The B22t horizon is grayish-brown light brownish-gray, or light-gray silt loam or silty clay loam that has many to common mottles in shades of brown. It is slightly acid or neutral. The B3 horizon is light olive-gray, light brownish-gray, or gray silt loam or silty clay loam that has many, fine, medium, and coarse, yellowish-brown mottles. It is slightly acid to neutral.

Patoutville soils are associated with Jeanerette, Frost, Calhoun, and Coteau soils. They are better drained and browner than Frost and Calhoun soils and do not have the strongly acid subsoil typical of those soils. They do not have the thick black surface layer typical of Jeanerette soils. They have darker coatings on the faces of peds in the upper part of the subsoil than Coteau soils and do not have the very strongly acid subsoil typical of those soils.

Patoutville silt loam (Pa). — This soil is in tracts of 20 to 50 acres at intermediate and high local elevations on the terrace uplands. It is somewhat poorly drained and is loamy throughout. The slope is no more than 1 percent.

Included with this soil in mapping are small areas of Coteau, Calhoun, Frost, and Jeanerette soils. Also included are large areas of a soil that does not have red mottles in the upper part of the subsoil.

Runoff is slow. Water and air move through the soil slowly. The soil is wet for long periods, mostly late in winter and early in spring. The seasonal high water table fluctuates between depths of ½ foot and 3 feet during the period December through April. The soil is easy to plow and can be worked throughout a wide range of moisture content. It is generally moderately low in organic-matter content and low in available phosphorus, potassium, and calcium. Adequate moisture is available to plants in most years. Wetness and low strength are the main limitations.

Most of the acreage is cultivated. Sugarcane is the principal crop. A small part is in pasture. A small part is used for homesites and other nonfarm purposes.

This soil is suited to most of the crops and pasture plants grown in the parish. Suitable crops are sugarcane, rice, corn, peppers, okra, sweet potatoes, and soybeans. Suitable pasture plants are Pensacola bahiagrass, common bermudagrass, white clover, southern wild winter peas, and vetch. Complete fertilization is needed for most crops and pastures. Crop residue management is needed in cultivated areas. Land smoothing and irrigation are needed for rice. Capability unit IIw-2; woodland suitability group 1w8.

Perry Series

Soils of the Perry series are poorly drained, are very

slowly permeable, and have a clayey subsoil. They are in narrow, shallow depressions that are parallel and adjacent to Bayou Teche. They formed in clayey Red River alluvium.

In a representative profile the surface layer is dark grayish-brown silty clay loam about 10 inches thick. Below this to a depth of 28 inches is gray clay mottled with shades of brown and red. The underlying material is dark-red clay mottled with shades of gray and brown.

Most of the acreage is used for homesites and other nonfarm purposes. A small acreage is cultivated, and a small acreage is pastured.

Representative profile of Perry silty clay loam, in an area of Gallion-Perry complex, gently undulating, in a sugarcane field 1,500 feet southeast of Vida Bridge over Bayou Teche, 100 feet west of field ditch, 5 feet north of field road; sec. 2 T. 12 S., R. 7 E.

Ap—0 to 10 inches, dark grayish-brown (10YR 4/2) silty clay loam; strong, fine, granular structure; friable; few, fine, black and brown concretions; medium acid; abrupt, wavy boundary.

B21g—10 to 22 inches, gray (5Y 5/1) clay; many, medium, prominent, strong-brown (7.5YR 5/6) mottles and few, medium, faint, dark-gray (10YR 4/1) mottles; moderate, medium, subangular blocky structure; firm; slightly acid; abrupt, regular boundary.

B22g—22 to 28 inches, gray (10YR 6/1) clay; many, coarse, prominent, yellowish-red (5YR 5/6) mottles, many, fine, prominent, dark-red (2.5YR 3/6) mottles, and few, fine, faint, dark-gray mottles; moderate, medium, angular blocky structure; firm; neutral; abrupt, irregular boundary.

IIB3—28 to 51 inches, dark-red (2.5YR 3/6) clay; many, medium, prominent grayish-brown (10YR 5/2) mottles and common, coarse, prominent, gray (5Y 5/1) mottles; strong, medium, angular blocky structure; firm; few, fine, black and brown concretions; common slickensides; few medium concretions of calcium carbonate; moderately alkaline; gradual, irregular boundary.

IIC—51 to 86 inches, dark-red (2.5YR 3/6) clay that has thin strata of silty clay loam; common, medium, prominent, grayish-brown (10YR 5/2) mottles and common, fine, prominent, gray mottles; moderate, fine, angular blocky structure; firm; few medium concretions of calcium carbonate in upper part; moderately alkaline; effervescent in places.

The A horizon is dark grayish brown or dark gray and is 5 to 10 inches thick. It is strongly acid to medium acid. The B2g horizon is olive gray, gray, or dark gray. It is very strongly acid to moderately alkaline. The IIB horizon is yellowish red, red, or dark red. It is neutral to moderately alkaline.

The Perry soils in mapping unit Ga are outside the range of the Perry series, because the B horizon has colors in 5Y hue. Use, behavior, and management, however, are the same as for other Perry soils.

Perry soils are associated with Gallion, Galvez, and Baldwin soils. They are more poorly drained and more clayey throughout than Gallion and Galvez soils. They have a more clayey subsoil than Baldwin soils, and their subsoil is reddish in the lower part, in contrast with the gray subsoil typical of those soils.

Placedo Series

Soils of the Placedo series are very poorly drained, very slowly permeable, clayey, and saline. They are in firm marshes on the gulf side of Marsh Island (fig. 8) and are frequently flooded. They formed in clayey alluvial and marine sediment.

In a representative profile the surface is covered by 1 inch of organic material. The surface layer is dark-gray clay about 8 inches thick. Below this is 9 inches of gray silty clay and thin layers of very fine sandy loam over gray clay.

Most of the acreage is in marsh vegetation and is used for wildlife habitat.

Representative profile of Placedo clay, in an area of Placedo association in a marsh on Marsh Island, one-half mile north of the Gulf of Mexico, 30 feet west of impoundment borrow pit canal; NE¼NE¼ sec. 35, T. 17 S., R. 5 E.

O1—1 inch to 0, very dark grayish-brown (10YR 3/2) mucky peat; about 75 percent fiber, about 50 percent rubbed; firm; 50 to 70 percent mineral content; many live roots; slightly acid; abrupt, smooth boundary.

A1g—0 to 8 inches, dark-gray (N 4/0) clay; common, medium, faint, gray (N 5/0) mottles; moderate, coarse, prismatic structure; firm; faces of peds and root channels stained dark brown; many roots; slightly acid; gradual, irregular boundary.

C1g—8 to 17 inches, gray (5Y 5/1) silty clay; many, fine, distinct, olive-brown mottles; moderate, coarse, prismatic structure; firm; thin strata of very fine sandy loam; common fine roots; moderately alkaline; abrupt, smooth boundary.

C2g—17 to 29 inches, gray (5Y 5/1) clay; many, fine and medium, distinct, dark yellowish-brown (10YR 4/4) and olive-brown (2.5Y 4/4) mottles; moderate, medium, prismatic structure; firm; few fine roots; moderately alkaline; abrupt, smooth boundary.

C3g—29 to 60 inches, gray (N 5/0) clay; few, medium, distinct, olive-brown (2.5Y 4/4) mottles and few, medium, distinct light-gray (N 7/0) mottles; moderate, medium, prismatic structure; firm; few fine roots; moderately alkaline.

Salinity is moderate to very high. The O horizon is organic material and live roots 1 to 4 inches thick. The

Figure 8.—Profile of Placedo soil on Marsh Island.

A horizon is dark-gray, very dark gray, or black clay 3 to 9 inches thick. It is slightly acid to moderately alkaline. The C1 horizon is gray clay or silty clay and thin layers of grayish-brown or olive-brown very fine sandy loam, silt loam, or sandy clay loam. The C2 and C3 horizons are gray clay.

The Placedo soils in this parish are slightly cooler than is defined as the range for the series.

Placedo soils are associated with Scatlake and Lafitte soils. They do not have the semifluid clayey horizon typical of Scatlake soils and do not have the semifluid organic layer typical of Lafitte soils.

Placedo association (PC). — These nearly level, very poorly drained, saline soils are mainly clayey throughout and are frequently flooded. They occur as one tract in firm marsh on the gulf side of Marsh Island.

The composition of this unit is more variable than that of most other units in the parish, but it has been controlled well enough that interpretations can be made for the expected use of the soils. The mapping unit is about 80 percent Placedo soils, which are at the highest elevation in the unit. Included in mapping are small areas of Scatlake soils at slightly lower elevations. Also included along the gulf beaches are small areas of soils that contain a high percentage of sand or shells.

These soils are subject to shallow flooding by the highest of the normal gulf tides. They are also subject to occasional deep flooding by storm tides. Tides range up to 10 feet above normal when hurricanes and tropical storms pass over or near the parish. The water table fluctuates from about 6 inches above to 6 inches below the surface the year round. Water and air move through the soils very slowly. Flooding, wetness, high shrink-swell potential, and low strength are the main limitations. Salinity is a limitation for some uses.

Most of the acreage is used for wildlife habitat. The soils produce habitat for deer, rabbit, geese, muskrat, nutria, duck, and associated species. The vegetation is the brackish and saline marsh types (*3*), dominantly marshhay cordgrass, saltmarsh bulrush, seashore paspalum, bigleaf sumpweed, and sea ox-eye.

These soils are firm enough to support livestock grazing. Wetness, flooding, and salinity make them generally unsuitable for commercial plant production. Their use is restricted mainly to recreation, wildlife habitat, or esthetic purposes. Properly managed low level weirs for water control, controlled burning, and controlled harvest are needed to improve the wildlife habitat. Capability unit VIIw-2; not placed in a woodland suitability group.

Scatlake Series

Soils of the Scatlake series are very poorly drained, very slowly permeable, and saline and have a clayey substratum. They are in soft marshes in Marsh Island and are flooded most of the time. They formed in alluvial and marine sediment.

In a representative profile the surface layer is covered with 6 inches of very dark gray mucky peat. The surface layer is very dark gray, semifluid mucky clay about 6 inches thick. The underlying material is dark-gray, black, gray, and greenish-gray, semifluid clay and mucky clay. The lower part contains thin layers of black organic material.

Most of the acreage is in marsh vegetation and is used for wildlife habitat.

Representative profile of Scatlake clay in an area of Scatlake association in a marsh on Marsh Island, one-half mile northwest of Oyster Lake, 200 feet southwest of canal; SW¼NE¼ sec. 30, T. 17 S., R. 6 E.

O1—6 inches to 0, very dark gray (10YR 3/1) mucky peat; about 75 percent fiber, about 50 percent rubbed; about 50 percent mineral content; mineral squeezes easily between fingers, fiber remains in hand; many live roots; moderately alkaline; gradual, smooth boundary.

A1g—0 to 6 inches, very dark gray (5Y 3/1), semi-fluid mucky clay; massive; squeezes easily between fingers; moderately alkaline; gradual, smooth boundary.

C1g—6 to 10 inches, dark-gray (5Y 4/1), semi-fluid clay; massive; squeezes easily between fingers leaving hand empty; moderately alkaline; abrupt, smooth boundary.

C2g—10 to 12 inches, black (N 2/0) muck and gray (5Y 5/1), semifluid mucky clay; massive; squeezes easily between fingers, leaving hand empty; moderately alkaline; abrupt, smooth boundary.

C3g—12 to 15 inches, gray (5Y 5/1), semifluid clay; massive; squeezes easily between fingers, leaving hand empty; moderately alkaline; abrupt, smooth boundary.

C4g—15 to 60 inches, greenish-gray (5GY 6/1), semifluid clay; massive; squeezes easily between fingers, leaving hand empty; moderately alkaline.

Salinity is moderate to high. The O horizon is 2 to 8 inches thick. The A horizon is very dark gray, dark-gray, or gray, semifluid clay, mucky clay, or mucky silty clay loam. The Cg horizon is dark-gray, gray, and greenish-gray, semifluid clay that has layers of black muck and gray, semifluid mucky clay 1 to 8 inches thick.

Scatlake soils are associated with Placedo and Lafitte soils. In contrast with Placedo soils, they do not have a firm clayey horizon. They do not have the thick organic material typical of Lafitte soils.

Scatlake association (SC). — These saline soils have a clayey substratum and are frequently flooded. They occur as one tract in the soft marsh of Marsh Island. They are nearly level. The elevation is less than 2 feet above sea level.

The composition of this unit is more variable than that of most other units in the parish, but it has been controlled well enough that interpretations can be made for the expected use of the soils. The mapping unit is about 80 percent Scatlake soils. Included in mapping are small areas of Placedo soils at slightly higher elevations. Also included are small areas of Lafitte soils.

These soils are subject to shallow flooding by the highest of the normal tides. They are also subject to occasional deep flooding by storm tides. Tides range up to 10 feet above normal when hurricane and tropical storms pass over or near the parish. Many small lakes and tidal channels are present. The water table fluctuates from about one-half foot above the surface to the surface the year round. Water and air move through the soils very slowly. If drained, the soils on drying shrink and form cracks that do not close when the soil is rewet. Flooding, wetness, high shrink-swell potential, and low strength are the main limitations. Salinity is a limitation for some uses.

These soils are too boggy for livestock grazing. Most

of the acreage is part of a wildlife refuge. Brackish marsh vegetation is dominant (*3*). These soils produce habitat for deer, rabbit, geese, muskrat, nutria, duck, alligator, and associated species, in addition to furnishing an environment that supports marine life of the Gulf of Mexico. The plant cover is dense if unburned for several years. It is dominantly marshhay cordgrass and needlegrass rush, along with small amounts of big cordgrass, seashore saltgrass, saltmarsh bulrush, and olney bulrush. Pure stands of needlegrass rush are in areas subject to daily tides of high salinity.

Wetness, flooding, and salinity are the main limitations. These soils are generally unsuitable for commercial production of most plants. Their use is restricted mainly to recreation, wildlife habitat, or esthetic purposes. Low level weirs for water control, level ditches, controlled burning, and in places controlled harvest improve wildlife habitat. Capability unit VIIIw-1; not placed in a woodland suitability group.

Sharkey Series

Soils of the Sharkey series are poorly drained, very slowly permeable, and clayey throughout. They are in low, level areas on the Bayou Teche natural levee part of the alluvial plain. They formed in clayey Mississippi River alluvium.

In a representative profile the surface layer is dark-gray clay about 7 inches thick. The subsoil is gray clay mottled with shades of brown.

Most of the acreage is cultivated or wooded. A small part is in pasture and nonfarm uses.

Representative profile of Sharkey clay, occasionally flooded, in woodland 2.5 miles east of Olivier, 0.3 mile southwest corner of northeast section; sec. 53, T. 12 S., R. 7 E.

A1—0 to 7 inches, dark-gray (10YR 4/1) clay, many fine, faint, dark yellowish-brown mottles; compound strong, medium, prismatic and moderate, medium, subangular blocky structure; firm; medium acid; gradual, irregular boundary.

B2g—7 to 24 inches, gray (10YR 5/1) clay; many, medium and fine, distinct dark yellowish-brown (10YR 4/4) mottles; strong, medium, subangular blocky structure; firm; dark-gray coatings on faces of peds; medium acid; gradual, irregular boundary.

B3g—24 to 36 inches, gray (5Y 5/1) clay; many, fine, distinct, yellowish-brown mottles; weak, medium, angular blocky structure; firm; few slickensides; neutral; abrupt, smooth boundary.

IICg—36 to 60 inches, light olive-gray (5Y 6/2) silty clay; few, fine, distinct, dark yellowish-brown mottles; massive; firm; moderately alkaline.

The A horizon is dark-gray, very dark gray, very dark grayish-brown, dark grayish-brown, or gray clay 5 to 9 inches thick. It is medium acid to slightly acid. The B horizon is dark-gray, gray, or grayish-brown clay. It is medium acid to mildly alkaline. The C horizon is light olive-gray or silty clay. It is medium acid to moderately alkaline.

Sharkey soils are associated with Fausse, Alligator, Iberia, and Baldwin soils. They dry and crack deeper than Fausse soils. They are less acid than Alligator soils. They have a thinner dark-colored surface layer than Iberia soils. They are more clayey throughout than Baldwin soils.

Sharkey clay (Sh).— This nearly level, poorly drained soil is clayey throughout. It is in low areas on the Bayou Teche natural levee part of the alluvial plain. Tracts range from 200 to 500 acres.

Included with this soil in mapping are large areas of similar soils that have a surface layer that is very strongly acid and a subsoil that is strongly acid or very strongly acid to a depth of 20 inches. Also included are small areas of Alligator, Baldwin, Iberia, and Perry soils; and some low areas that are occasionally flooded.

The profile of this soil differs from the one described as representative of the series in having a very dark gray surface layer that is 6 to 9 inches thick. Water and air move through the soil very slowly. Runoff is slow. The soil is wet for long periods late in winter and in spring. The seasonal high water table is at the surface or within a depth of 2 feet during the period December through April.

The soil is hard to plow and can be worked within only a narrow range of moisture content. It becomes cloddy when plowed. It shrinks and cracks when dry. Plants sometimes lack adequate moisture during dry periods in summer and fall. The soil is generally moderate in organic-matter content and somewhat low in available phosphorus, potassium, and calcium. Wetness, high shrink-swell potential, and low strength are the main limitations.

Most of the acreage is cultivated. Sugarcane is the principal crop. A small acreage is used for woodland, pasture, and nonfarm purposes.

This soil is suited to most of the crops and pasture plants grown in the parish. Suitable crops are sugarcane, rice, peppers, okra, and soybeans. Suitable pasture plants are tall fescue, Pensacola bahiagrass, common bermudagrass, white clover, vetch, southern wild winter peas, and red clover. Drainage and complete fertilization are generally needed for most crops and pastures. Crop residue management is needed in cultivated areas. Land smoothing and irrigation are needed for rice. Capability unit IIIw-1; woodland suitability group 2w6.

Sharkey clay, occasionally flooded (Sk).— This nearly level, poorly drained soil is clayey throughout. It is subject to occasional flooding from local runoff. It is in low areas on the Bayou Teche natural levee part of the alluvial plain. The elevation is dominantly 3 to 5 feet above sea level. Tracts range from 200 to 1,000 acres.

Included with this soil in mapping are small areas of Baldwin, Iberia, and Fausse soils. Also included are small, seldom flooded areas of Sharkey soils at higher elevations.

This soil has the profile described as representative of the series. Runoff is slow. The soils at the lower elevations are flooded more than 2 years in 5, from June through November. Water and air move through the soil very slowly. The soil is wet for long periods late in winter and in spring. The seasonal high water table is at the surface or within a depth of 2 feet during the period December through April.

The soil is hard to plow and can be worked within only a narrow range of moisture content. It becomes cloddy when plowed. It shrinks and cracks when dry. It is generally moderate in organic-matter content and somewhat low in available phosphorus, potassium, and calcium. Plants sometime lack adequate moisture during dry periods in summer and fall. Flooding, wetness, high shrink-swell potential, and low strength are the main limitations.

Most of the acreage is wooded. A small acreage is drained and cultivated. Sugarcane and rice are the principal crops.

If drained, this soil is suited to most of the crops and pasture plants grown in the parish. Suitable crops are sugarcane, rice, peppers, okra, and soybeans. Suitable pasture plants are tall fescue, Pensacola bahiagrass, common bermudagrass, white clover, vetch, winter peas, and red clover. Drainage and complete fertilization are generally needed for most crops and pasture. Crop residue management is needed in cultivated areas. Land smoothing and irrigation are needed for rice. Capability unit IVw-1; woodland suitability group 3w6.

Use and Management of the Soils

This section suggests management of the soils for crops and pasture and presents facts about woodland, wildlife, and range in the parish. It also provides information to be considered in engineering and other selected uses of the soils.

Crops and Pasture

General principles of soil management that are widely applicable in Iberia Parish are explained in the following paragraphs. Specific recommendations cannot be given because management changes as new information becomes available. Assistance in detailed planning can be obtained from the local representatives of the Soil Conservation Service and from representatives of the Extension Service of the Louisiana Agricultural Experiment Station.

Fertilizer and lime.—The soils that are suited to crops and pasture range from extremely acid to moderately alkaline and from silt loam to clay. They are generally low in available nitrogen, phosphorus, and potassium. Available calcium is generally high on about 70 percent of the acreage used for crops and pasture. It is medium on about 10 percent, low on about 10 percent, and very low on about 10 percent (*2*), (*16*). The amount and kind of lime to be applied should always be determined by laboratory analysis of a representative soil sample. A representative soil sample should consist of a single kind of soil and should represent an area of uniform past use and treatment. Information and instructions on collecting and testing soil samples can be obtained from local agricultural agencies.

Organic matter.—Most of the cultivated soils in this parish have a moderate organic-matter content. Organic matter is an important source of nitrogen. It also increases the rate of water intake, reduces surface crusting, improves tilth, and reduces soil loss through erosion. Organic matter can best be supplied by managing the crop residue. If the cropping system permits, organic matter can also be supplied by including perennial grasses and legumes in the rotation and by using barnyard manure.

Tillage.—Soils should be tilled only enough to prepare a seedbed and to control weeds. Excessive tillage destroys soil structure in loamy soils and causes the formation of a compact layer, or plowpan. Compaction limits water intake, water storage, and root development. Chiseling and deep plowing break up the compacted layers and increase yields on loamy soils of the alluvial plain. Subsoiling, however, should not be expected to increase yields on clayey soils, and it has not increased yields of sugarcane on silty soils of the terrace uplands (*24*).

Drainage.—Many of the soils in the parish need surface drainage to make them more suitable for the crops grown. Tile drainage generally is not suitable, because many of the soils are too slowly permeable. The drainage system most commonly used consists of open ditches. This system combines row drains and row arrangement with parallel lateral ditches and canalized outlets. Spacing of lateral ditches and row drains is based on the slope. Clayey soils have less slope and need closer ditch spacing. A system of precision grading that eliminates many of the lateral ditches is now used on some of the loamy soils and, to lesser extent, on the clayey soils. Crowning is used to improve surface drainage on the clayey soils. This is accomplished by sloping the land from the center between lateral ditches. Soils at low elevations used for crops and pastures are protected from flooding by the Atchafalaya Basin Floodway protection levee system and are drained by a pump-off drainage system. The interior ditch pattern used is like the one used for the higher lands. The ditch pattern used for rice lacks the lateral ditches. The soils used for rice are smoothed, and surface drainage is through ditches in the lows and the improved outlets.

Control of erosion.—Some of the soils in the parish are subject to sheet and gully erosion if they are clean tilled. Control of runoff is needed to prevent loss of soil material. Diversion terraces, parallel terraces, contour farming, grassed waterways, minimum tillage, crop residue management, stripcropping, and overfall structures can be used to reduce the soil loss.

Cropping system.—Three crops of sugarcane are generally obtained from each planting. Sugarcane is seldom rotated with a row crop. After the third crop of sugarcane the field is planted to soybeans for green manure or fallow plowed for weed control. The supply of organic matter in the soil can be maintained even when the sugarcane plant residue is the only organic matter incorporated into the soil. Turning under a good soybean crop, for example, helps maintain the level of organic matter. In addition, it supplies about 40 pounds of nitrogen and controls annual grasses and broad-leaf weeds (*24*).

Capability grouping

Some readers, particularly those who farm on a large scale, may find it practical to use and manage alike some of the different kinds of soil on their farm. These readers can make good use of the capability classification system, a grouping that shows, in a general way, the suitability of soils for most kinds of farming.

The grouping is based on permanent limitations of soils when used for field crops, the risk of damage when they are farmed, and the way the soils respond to treatment. The grouping does not take into account major and generally expensive landforming that would change slope, depth, or other characteristics of the soils; does not take into consideration possible but unlikely major reclamation projects; and does not apply to rice, cranberries, horticultural crops, or other crops that require special management.

Those familiar with the capability classification can infer from it much about the behavior of soils when used for other purposes, but this classification is not a substitute for interpretations designed to show suitability and limitations for range, for forest trees, or for engineering.

In the capability system, all kinds of soil are grouped at three levels: the class, the subclass, and the unit. The broadest grouping, the capability class, is designated by Roman numerals I to VIII. In class I are the soils that have the fewest limitations, the widest range of use, and the least risk of damage when they are used. The soils in the other classes have progressively greater natural limitations. In class VIII are soils and land forms so rough, shallow, or otherwise limited that they do not produce worthwhile yields of crops, forage, or wood products. The subclass indicates major kinds of limitations within the classes. Within most of the classes there can be up to 4 subclasses. The subclasses are indicated 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* means 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* indicates that the chief limitations is climate that is too cold, or too dry.

In class I there are no subclasses, because the soils of this class have few or no limitations. Class V can contain, at the most, only subclasses w, s, and c, because the soils are subject to little or no erosion but have other limitations that confine their use largely to pasture, range, or wildlife.

Subclasses are further divided into groups called capability units. These groups of soils that are so much alike that they are suited to the same crops and pasture plants, they require about the same management, and have generally similar productivity and other response to management. Capability units are generally identified by numbers assigned locally, for example, IIw-3 or IIIe-1.

The eight classes in the capability system and the subclasses and units in Iberia Parish are described in the list that follows: The unit designation for each soil in the parish is given in the Guide to Mapping Units.

Class I. Soils have few limitations that restrict their use. (None in Iberia Parish.)

Class II. Soils have moderate limitations that reduce the choice of plants or require moderate conservation practices.

- Subclass IIw. Soils moderately limited by excess water.
  - Unit IIw-1. Somewhat poorly drained, nearly level loamy soils.
  - Unit IIw-2. Somewhat poorly drained, nearly level loamy soils that are low in sand content.
  - Unit IIw-3. Somewhat poorly drained, nearly level alkaline loamy soils.

Class III. Soils have severe limitations that reduce the choice of plants, require special conservation practices, or both.

- Subclass IIIe. Soils subject to severe erosion if cultivated and not protected.
  - Unit IIIe-1. Well-drained and somewhat poorly drained, sloping loamy soils.
- Subclass IIIw. Soils severely limited for cultivation by excess water.
  - Unit IIIw-1. Poorly drained, nearly level clayey soils.
  - Unit IIIw-2. Poorly drained, nearly level, very strongly acid clayey soils.
  - Unit IIIw-3. Poorly drained, nearly level soils that have a loamy surface layer and a clayey subsoil.
  - Unit IIIw-4. Poorly drained clayey soils and somewhat poorly drained loamy soils.
  - Unit IIIw-5. Well-drained loamy soils and poorly drained clayey soils.
  - Unit IIIw-6. Poorly drained, nearly level loamy soils.
  - Unit IIIw-7. Poorly drained, gently sloping loamy soils.

Class IV. Soils have very severe limitations that reduce the choice of plants, require very careful management, or both.

- Subclass IVw. Soils very severely limited for cultivation due to excess water.
  - Unit IVw-1. Occasionally flooded clayey soils.

Class V. Soils are subject to little or no erosion but have other limitations, impractical to remove, that limit their use largely to pasture or range, woodland, or wildlife food and cover.

- Subclass Vw. Soils limited chiefly by flooding.
  - Unit Vw-1. Frequently flooded clayey soils.
  - Unit Vw-3. Frequently flooded clayey and loamy soils.

Class VI. Soils have severe limitations that make them generally unsuited to cultivation and limit their

use largely to pasture or range, woodland, or wildlife food and cover.

Subclass VIe. Soils severely limited, chiefly by risk of erosion unless protective cover is maintained.

Unit VIe-1. Well-drained, hilly loamy soils.

Class VII. Soils have very severe limitations that make them unsuited to cultivation and restrict their use mainly to range, woodland, or wildlife food and cover.

Subclass VIIw. Soils very severely limited by wetness and flooding.

Unit VIIw-1. Clayey and loamy soils that are flooded most of the time.

Unit VIIw-2. Saline clayey and loamy soils that are flooded most of the time.

Class VIII. Soils have limitations that preclude their use for commercial crop production and restrict their use to recreation, wildlife food and cover, water supply, or esthetic purposes.

Subclass VIIIw. Soils limited chiefly by wetness and flooding.

Unit VIIIw-1. Semifluid organic and clayey soils that are flooded most of the time.

Predicted yields

Predicted yields of the principal crops grown in the parish are shown in table 2. The yields are based on estimates made by farmers, soil scientists, and others who have knowledge of yields in the parish and on information taken from research data. The predicted yields are average yields per acre that can be expected under a high level of management.

Crops other than those shown in table 2 are grown in the parish, but their predicted yields are not included because the acreage is small or reliable data on yields are not available.

The yields for sugarcane given in table 2 can be expected if—

1. Rainfall is effectively used and conserved.
2. Surface or subsurface drainage systems are installed.
3. Crop residue is managed to maintain soil tilth.
4. Tillage is minimum but timely.
5. Insects, diseases, and weeds are controlled.
6. Fertilizer is applied according to soil tests and crop needs.
7. Adapted crop varieties are used at recommended seeding rates.

The following additional practices are used for rice:

1. Water of suitable quality is used for irrigation.
2. Irrigation systems are properly designed and efficiently used.

TABLE 2.—*Predicted average yields per acre of principal crops*

[Absence of a figure indicates that the crop is not suited to the soil specified or is not commonly grown. The soils listed are suited to one or more of the principal crops]

Soil series and map symbols	Sugarcane	Rice	Common bermudagrass	Tall fescue
	Tons	*Bu*	*AUM*[1]	*AUM*[1]
Alligator:				
Ag, Ax	26	130	6.5	8.5
At			5.0	
Baldwin: Ba	30	120	7.0	9.0
Calhoun: Ca	24	120	5.5	
Coteau: Co	25	110	6.0	
Frost:				
Fr	26	120	5.5	
Fs			5.5	
Gallion: Ga	29		7.5	
Galvez: Gv	29	110	7.5	
Iberia:				
Ia			4.0	
Ib	26	130	6.5	9.0
Jeanerette:				
Ja	27	110	7.5	8.5
Jn			7.5	8.5
Loreauville: Lo	30	110	8.0	8.5
Memphis:				
Me	20		7.0	
MH			6.0	
Newellton: NC			4.5	
Patoutville: Pa	27	110	6.0	
Perry	27		6.0	8.0
Mapped in a complex with Gallion soils.				
Sharkey:				
Sh	28	130	6.5	9.0
Sk	28	130	6.0	9.0

[1]Animal-unit-month expresses the carrying capacity of pasture. It is the number of months that one cow, one steer, one horse, five hogs, or seven sheep can graze 1 acre without injury to the pasture.

Soils and Woodland

About one-third of Iberia Parish is wooded with southern hardwoods. Some stands are of good commercial quality.

The value of the wood products is far below its potential. In addition to wood crops, the woodland is valuable for wildlife habitat, recreation, and natural beauty and for conserving soil and water. This section has been provided to explain how soils affect tree growth and management.

The soils of Iberia Parish that are suited to woodland have been assigned to eight woodland suitability groups. Table 3 shows the potential productivity and the management hazards of these soils when used for growing wood crops.

Each woodland suitability group is made up of soils that are suited to the same kinds of trees, need the same kind of management, and have the same potential productivity. Each is identified by a three-part symbol.

TABLE 3.—*Suitability of soils for woodland*

Soil series and map symbol	Woodland suitability group	Important trees	Site index	Erosion hazard	Equipment limitations	Seedling mortality	Trees suitable for planting
Alligator:							
Ag, Ax	2w6	Green ash	80	Slight	Severe	Moderate	Green ash, eastern cottonwood, sweetgum, and cherrybark oak.
		Eastern cottonwood	100				
		Water oak	90				
		Sweetgum	90				
		Cherrybark oak	90				
For Galvez part of Ax, see Galvez series.							
At	3w6	Green ash	70	Slight	Severe	Severe	Green ash, eastern cottonwood, sweetgum, and cherrybark oak.
		Eastern cottonwood	90				
		Water oak	80				
		Sweetgum	80				
		Cherrybark oak	80				
Baldwin: Ba	2w6	Green ash	80	Slight	Severe	Moderate	Green ash, eastern cottonwood, sweetgum, and American sycamore.
		Eastern cottonwood	100				
		Water oak	90				
		Pecan					
		Sweetgum	90				
		American sycamore					
Calhoun: Ca	2w9	Cherrybark oak	80–90	Slight	Severe	Moderate to severe.	Cherrybark oak, loblolly pine, slash pine, and sweetgum.
		Water oak	80				
		Loblolly pine	90				
		Slash pine	90				
		Sweetgum	80–90				
Convent	1w5	Green ash	80	Slight	Moderate	Slight	Eastern cottonwood, American sycamore, green ash, and water oak.
		Eastern cottonwood					
		Sweetgum	110				
		American sycamore					
Mapped in a complex with Fausse association and Newellton association.							
Coteau: Co	1w8	Loblolly pine	100	Slight	Moderate	Slight	Loblolly pine, slash pine, and American sycamore.
		Slash pine					
		Water oak	90				
		Cherrybark oak	90				
Fausse: FA, FC, FE	3w6	Green ash	70	Slight	Severe	Severe	Green ash, baldcypress, and nuttall oak.
		Baldcypress					
		Pecan					
		Water tupelo					
For Convent part of FC, see Convent series.							
Frost: Fr, Fs	2w9	Cherrybark oak	80–90	Slight	Severe	Moderate to severe.	Cherrybark oak, water oak, loblolly pine, slash pine, and sweetgum.
		Water oak	80				
		Loblolly pine	90				
		Slash pine	90				
		Sweetgum	80–90				
Gallion: Ga	2o4	Green ash	80	Slight	Slight	Slight	Green ash, eastern cottonwood, cherrybark oak, water oak, and sweetgum.
		Eastern cottonwood	100				
		Cherrybark oak	90				
		Water oak	90				
		Sweetgum	90				
For Perry part, see Perry series.							
Galvez: Gv	2w5	Green ash	80	Slight	Moderate	Slight to moderate.	Green ash, eastern cottonwood, cherrybark oak, and water oak.
		Eastern cottonwood	110				
		Cherrybark oak	90				
		Water oak	90				
Iberia:							
Ia	3w6	Green ash	70	Slight	Severe	Severe	Green ash, baldcypress, and water tupelo.
		Baldcypress					
		Water tupelo					
Ib	2w6	Green ash	80	Slight	Severe	Severe	Eastern cottonwood and sweetgum.
		Eastern cottonwood	95				
		Sweetgum	90				

TABLE 3.—*Suitability of soils for woodland*—Continued

Soil series and map symbol	Woodland suitability group	Important trees	Site index	Erosion hazard	Equipment limitations	Seedling mortality	Trees suitable for planting
Jeanerette: Ja, Jn. For Coteau part of Jn, see Coteau series.	2w5	Green ash	80	Slight	Slight	Moderate	Green ash, eastern cottonwood, sweetgum, water oak, and American sycamore.
		Eastern cottonwood					
		Water oak					
		Sweetgum					
		American sycamore					
		Cherrybark oak	90				
Loreauville: Lo	1w5	Green ash	80	Slight	Moderate	Slight	Eastern cottonwood.
		Eastern cottonwood	119				
		Water oak	109				
		Pecan					
		American sycamore					
Memphis: Me, MH	1o7	Green ash	100	Slight	Slight	Slight	Cherrybark oak, loblolly pine, slash pine, sweetgum, and American sycamore.
		Cherrybark oak	110				
		Slash pine	100				
		Loblolly pine	100				
		Sweetgum	110				
Newellton: NC. For Convent part, see Convent series.	3w6	Green ash	70	Slight	Severe	Severe	Green ash, baldcypress, eastern cottonwood, nuttall oak, and sweetgum.
		Eastern cottonwood	90				
		Black willow					
		Nuttall oak	80				
		Sweetgum	80				
Patoutville: Pa	1w8	Cherrybark oak	100	Slight	Moderate	Slight to moderate.	Cherrybark oak, water oak, slash pine, loblolly pine, and sweetgum.
		Water oak	100				
		Loblolly pine	100				
		Sweetgum	100				
Perry. Mapped only with Gallion soils.	2w6	Green ash	80	Slight	Severe	Moderate	Green ash, cherrybark oak, nuttall oak, water oak, and sweetgum.
		Cherrybark oak	90				
		Nuttall oak	90				
		Water oak	90				
		Sweetgum	90				
Sharkey:							
Sh	2w6	Green ash	85	Slight	Severe	Moderate	Green ash, eastern cottonwood, cherrybark oak, water oak, and sweetgum.
		Eastern cottonwood	100				
		Cherrybark oak	90				
		Sweetgum	90				
		Water oak					
Sk	3w6	Green ash	70	Slight	Severe	Severe	Green ash, eastern cottonwood, nuttall oak, and sweetgum.
		Eastern cottonwood	90				
		Nuttall oak	80				
		Water oak					
		Pecan					

The first part of the symbol indicates the relative productivity of the soil: 1 means *very high;* 2, *high;* 3, *moderately high;* 4, *moderate;* and 5, *low*. The second part of the symbol, a letter, indicates the important soil property that imposes a moderate or severe hazard or limitation for woodland use or management. The third element in the symbol indicates the degree of limitation or hazard and the general suitability of the soils for certain kinds of trees.

The three management problems considered are: (1) *erosion hazard,* (2) *equipment limitations,* and (3) *seedling mortality.*

Numeral 1 indicates soils that have no limitations to only slight limitations and are best suited to needleleaf trees. (None in Iberia Parish.)

Numeral 2 indicates soils that have one or more moderate limitations and are best suited to needleleaf trees. (None in Iberia Parish.)

Numeral 3 indicates soils that have one or more severe limitations and are best suited to needleleaf trees. (None in Iberia Parish.)

Numeral 4 indicates soils that have no limitations to only slight limitations and are best suited to broadleaf trees.

Numeral 5 indicates soils that have one or more moderate limitations and are best suited to broadleaf trees.

Numeral 6 indicates soils that have one or more severe limitations and are best suited to broadleaf trees.

Numeral 7 indicates soils that have no limitation to only slight limitations and are suitable for either needleleaf or broadleaf trees.

Numeral 8 indicates soils that have one or more moderate limitations and are suitable for either needleleaf or broadleaf trees.

Numeral 9 indicates soils that have one or more severe limitations and are suitable for either needleleaf or broadleaf trees.

Numeral 0 indicates soils that are not suitable for the commercial production of major wood products. (None in Iberia Parish.)

A list of some of the commercially important trees that are adapted to the soils of the parish is shown in table 3. These trees are generally favored by woodland managers in intermediate or improvement cuttings. The potential productivity of these trees is shown by the *site index*. The *site index* is the average height, in feet, of dominant trees at age 30 for cottonwood, at age 35 for sycamore, and at age 50 for all other species.

The management concerns evaluated in table 3 are *erosion hazard, equipment limitations,* and *seedling mortality.*

Erosion hazard measures the risk of soil loss in well-managed woodland. It is *slight* if expected soil loss is small; *moderate* if some measures to control erosion are needed in logging and construction; and *severe* if intensive treatment or special equipment and methods are needed to prevent excessive soil loss.

Equipment limitations reflect the soil conditions that restrict the use of equipment normally used in woodland management or harvesting. A rating of *slight* indicates that the use of equipment is not limited to kind or to time of year. A rating of *moderate* indicates a seasonal limitation or a need for modification of equipment. A rating of *severe* indicates a need for specialized equipment or operations.

Seedling mortality refers to expected mortality of planted seedlings when plant competition is not a limiting factor. Normal rainfall, good planting stock, and proper planting are assumed. A rating of *slight* indicates an expected mortality of less than 25 percent; *moderate,* 25 to 50 percent; and *severe,* more than 50 percent.

A list of trees suitable for planting for commercial wood production is also shown in table 3.

Soils and Wildlife Habitat[2]

Iberia Parish is about equally divided between openland, woodland, and marsh. These areas provide habitat for many kinds of wildlife. Lakes, rivers, bayous, bays, and many large bodies of freshwater and saline water are in the parish. All are highly productive for commercial and sport fishing.

The parish has a small native population of bear that live mostly on the Maurepas association. All large wooded areas and marshes have populations of deer and swamp rabbit. Fox and gray squirrel are in the woodland. During the winter large populations of woodcock are in parts of the woodland.

Quail, rabbit, and dove are the major game species in the cultivated areas. The highest quail population is on the Coteau-Patoutville association. Dove are most abundant during the fall and winter.

The marshes of Iberia Parish provide productive wildlife habitat. They are part of the estuarine complex that contributes to the support of Gulf marine life. Most species of ducks and geese that are found in the Mississippi flyway winter in these marshes. The mottled duck and the clapper rail are permanent residents. Muskrat, nutria, raccoon, and mink are abundant.

[2]RAY SMITH, JR., biologist, Soil Conservation Service, helped prepare this section.

Marsh Island, in the southern part of Vermilion Bay, is the Russell Sage Wildlife Refuge and Game Preserve. It is managed by the Refuge Division of the Louisiana Wild Life and Fisheries Commission. Proper water control and vegetative management is practiced. A low level weir for water control is on Scatlake soil (fig. 9). Marsh Island supports a large population of waterfowl, furbearers, and alligators.

The Jungle Gardens Sanctuary on Avery Island has one of the largest breeding colonies of egrets and herons in the State. These colonies can best be seen during the spring breeding season.

Vermilion Bay and the adjoining estuaries produce large amounts of crab, shrimp, and saltwater fish. Oysters were once important, but production has decreased in recent years. The city of Delcambre has port and processing facilities for a large commercial fishing fleet.

The Atchafalaya River and the associated lakes and bayous contain freshwater. They are highly productive for both commercial and sport fishing. The major freshwater species are bass, bluegill, crappie, catfish, gar, and gaspergou. Millions of pounds of commercial crawfish are harvested annually from the Atchafalaya Basin Floodway. Most of the crawfish are produced and harvested on the Fausse association.

Soils directly influence the kind and amount of vegetation and the amount of water available, and in this way indirectly influence the kind of wildlife that can live in an area. Soil properties that affect the growth of wildlife habitat are: (1) thickness of soil useful to crops, (2) surface texture, (3) available water capacity to a depth of 40 inches, (4) wetness, (5) surface stoniness or rockiness, (6) flood hazard, (7) slope, and (8) permeability of the soil to air and water.

In table 4 the soils of Iberia Parish are rated according to their suitability for producing six elements of wildlife habitat and three kinds of wildlife. A rating of *good* means that the element of wildlife habitat and the kind of habitat generally are easily created, improved, and maintained. Few or no limitations affect management in this category, and satisfactory results are expected when the soil is used for the prescribed purpose.

A rating of *fair* means that the element of wildlife habitat and the kind of habitat can be created, improved, or maintained in most places. Moderately intensive management and fairly frequent attention, however, may be required for satisfactory results.

A rating of *poor* means that the limitations for the designated use are severe. Habitat can be created, improved, or maintained in most places, but management is difficult and requires intensive effort.

A rating of *very poor* means that the limitations for the designated use are very severe and unsatisfactory results are to be expected. It is either impossible or impractical to create, improve, or maintain habitat on soils in this category.

Habitat elements.—Each soil is rated in table 4 according to its suitability for producing various kinds of plants and other elements that make up wildlife

Figure 9.—Low level weir for water control on Scatlake soil.

habitat. The ratings take into account mainly the characteristics of the soils and closely related natural factors of the environment. They do not take into account climate, present use of soils, or present distribution of wildlife and people. For this reason, selection of a site for development as a habitat for wildlife requires inspection at the site.

Grain and seed crops are annual grain-producing plants, such as corn, sorghum, millet, and soybeans.

Domestic grasses and legumes are established by planting. They provide food and cover for wildlife. Grasses are bahiagrass, ryegrass, and panicgrass. Legumes are annual lespedeza, shrub lespedeza, and other clovers.

Wild herbaceous plants are native or introduced perennial grasses, forbs, and weeds that provide food and cover for upland wildlife. Beggarweed, perennial lespedeza, wild bean, pokeweed, and cheatgrass are typical examples. On range, typical plants are bluestem and grama grasses, and perennial forbs and legumes.

Hardwood trees, shrubs, and vines are nonconiferous trees, shrubs, and woody vines that produce wildlife food in the form of fruits, nuts, buds, catkins, or browse. Such plants commonly grow in their natural environment, but they may be planted and developed through wildlife management programs. Typical species in this category are oak, beech, cherry, dogwood, maple, viburnum, grape, honeysuckle, greenbrier, and silverberry.

Wetland plants are annual and perennial herbaceous plants that grow wild on moist and wet sites. They furnish food and cover mostly for wetland wildlife. Typical examples are smartweed, wild millet, spikerush and other rushes, sedges, burreed, tearthumb, and aneilema. Submerged and floating aquatics are not included in this category.

Shallow water areas are impoundments or excavations for controlling water, generally no more than 5 feet deep, to create habitat that is suitable for waterfowl. Some are designed to be drained, planted, and then flooded. Others are permanent impoundments that grow submerged aquatics.

Kinds of Wildlife.—Table 4 shows the suitability of the soils for the three kinds of wildlife in the parish—openland, woodland, and wetland wildlife. The ratings are related to those made for the elements of wildlife habitat. For example, soils rated very poor for shallow

TABLE 4.—*Suitability of soils as wildlife habitat*

Soil series and map symbol	Potential for habitat elements						Potential as habitat for—		
	Grain and seed crops	Domestic grasses and legumes	Wild herbaceous plants	Hardwood trees, shrubs, and vines	Wetland plants	Shallow water areas	Openland wildlife	Woodland wildlife	Wetland wildlife
Alligator:									
Ag, Ax	Fair	Fair	Fair	Good	Good	Good	Fair	Good	Good.
At	Poor	Fair	Fair	Fair	Good	Good	Fair	Fair	Good.
Andry: AY	Very poor	Very poor	Very poor	Very poor	Good[1]	Poor	Very poor	Very poor	Good[1].
Baldwin: Ba	Fair	Fair	Fair	Good	Good	Good	Fair	Good	Good.
Calhoun: Ca	Poor	Fair	Fair	Fair	Good	Good	Fair	Fair	Good.
Convent	Poor	Fair	Fair	Good	Poor	Poor	Fair	Good	Poor.
Mapped with Fausse and Newellton soils.									
Coteau: Co	Fair	Good	Good	Good	Fair	Fair	Good	Good	Fair.
Delcomb: DE	Very poor	Very poor	Very poor	Very poor	Good[1]	Very poor	Very poor	Very poor	Good[1].
Fausse:									
FA	Very poor	Very poor	Very poor	Poor	Good	Good	Very poor	Poor	Good.
FC, FE	Very poor	Very poor	Very poor	Poor	Good[1]	Good	Very poor	Poor	Good[1].
Frost:									
Fr	Poor	Fair	Fair	Good	Good	Good	Fair	Good	Good.
Fs	Poor	Fair	Fair	Good	Poor	Very poor	Fair	Good	Very poor.
Gallion: Ga	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor.
Galvez: Gv	Good	Good	Good	Good	Fair	Fair	Good	Good	Fair.
Iberia:									
Ia	Poor	Fair	Fair	Fair	Good	Good	Fair	Fair	Good.
Ib	Fair	Fair	Fair	Good	Good	Good	Fair	Good	Good.
Jeanerette: Ja, Jn	Good	Good	Good	Good	Good	Good	Good	Good	Good.
Lafitte: LA	Very poor	Very poor	Very poor	Very poor	Good[1]	Very poor	Very poor	Very poor	Good[1].
Loreauville: Lo	Good	Good	Good	Good	Fair	Fair	Good	Good	Fair.
Maurepas: MA	Very poor	Very poor	Poor	Very poor	Good[1]	Very poor	Very poor	Very poor	Good[1].
Memphis:									
Me	Fair	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor.
MH	Poor	Fair	Good	Good	Very poor	Very poor	Fair	Good	Very poor.
Newellton: NC	Poor	Poor	Poor	Fair	Fair	Poor	Poor	Fair	Poor.
Patoutville: Pa	Fair	Good	Good	Good	Fair	Fair	Good	Good	Fair.
Perry	Fair	Fair	Fair	Good	Good	Good	Fair	Good	Good.
Mapped with Gallion soils.									
Placedo: PC	Very poor	Very poor	Very poor	Very poor	Fair[1]	Poor	Very poor	Very poor	Fair[1].
Scatlake: SC	Very poor	Very poor	Very poor	Very poor	Good[1]	Very poor	Very poor	Very poor	Good[1].
Sharkey:									
Sh	Fair	Fair	Fair	Good	Good	Good	Fair	Good	Good.
Sk	Poor	Fair	Fair	Good	Good	Good	Fair	Good	Good.

[1]Rating applies to natural state. Soil is poorly suited to management.

water developments are rated very poor for wetland wildlife.

Openland wildlife are birds and mammals that normally live in meadows, pastures, and open areas where grasses, herbs, and shrubby plants grow. Quail, dove, meadowlark, field sparrow, and rabbit are typical examples of openland wildlife.

Woodland wildlife are birds and mammals that normally live in wooded areas of hardwood trees, coniferous trees, and shrubs. Woodcock, thrush, deer, squirrel, and raccoon are typical examples.

Wetland wildlife are birds and mammals that normally live in wet areas, marshes, and swamps. Ducks, geese, rails, shore birds, herons, mink, nutria, and muskrat are typical examples of wetland wildlife.

Soils and Range[3]

About 107,000 acres of Iberia Parish is marsh. About 11,000 acres of the marsh is firm enough for grazing cattle, but only about 5,000 acres is grazed. The cattle are primarily crosses of Brahman and other breeds. Stockers and veal calves are the major classes marketed.

Two major range sites are in the parish—Fresh Marsh and Salt Marsh. Fresh marsh vegetation (*3*) is dominant on the Fresh Marsh range site. Intermediate and brackish marsh vegetation (*3*) are dominant on the Salt Marsh range site. The soils in the Fresh Marsh range site are Alligator soils, frequently flooded. The soils in the Salt Marsh range site are Andry and Placedo associations. More detailed information about the soils is given in the section "Descriptions of the Soils." The soils used for range are flooded less often. Paille fine is the dominant grass on the Fresh Marsh range site. The degree of salinity of the water on the Salt Marsh range site varies according to the source of floodwater. The floodwater is generally a mixture of freshwater from rainfall and runoff and saline water from gulf tides. Marshhay cordgrass is dominant on the Salt Marsh range site.

The usual grazing period of marsh range is from mid-October to mid-April. Cattle do well on the marsh ranges in the winter except during severe storms and long rainy periods. Mosquitoes and other bloodsucking insects make it necessary to move cattle from the marsh range during summer. They are usually moved to fallow ricefields or permanent pastures.

The major hazards on marsh range are insects and deep flooding from occasional gulf storm tides. Management concerns are disease, lack of shelter, lack of suitable water, bogging and freezing, and wildlife. Inadequate distribution of cattle, rapid fence deterioration, and difficulty of access are additional concerns. Many concerns can be overcome through good range management.

[3]ALTON T. WILHITE, JR., range conservationist, Soil Conservation Service, helped prepare this section.

Soils and Engineering[4]

This section is useful to those who need information about soils used as structural material or as foundation upon which structures are built. Among those who can benefit from this section are planning commissions, town and city managers, land developers, engineers, contractors, and farmers.

Among properties of soils highly important in engineering are permeability, strength, compaction characteristics, soil drainage, shrink-swell potential, grain size, plasticity, and soil reaction. Also important are depth to the water table and soil slope. These properties, in varying degrees and combinations, affect construction and maintenance of roads, airports, pipelines, foundations for small buildings, irrigation systems, ponds and small dams, and systems for disposal of sewage and refuse.

Information in this section can be helpful to those who—

1. Select potential residential, industrial, commercial, and recreational areas.
2. Evaluate alternate routes for roads, highways, pipelines, and underground cables.
3. Seek sources of gravel, sand, or clay.
4. Plan farm drainage systems, irrigation systems, ponds, terraces, and other structures for controlling water and conserving soil.
5. Correlate performance of structures already built with properties of the soil on which they are built, for the purpose of predicting performance of structures on the same or similar kinds of soil in other locations.
6. Predict the trafficability of soils for cross-country movement of vehicles and construction equipment.
7. Develop preliminary estimates pertinent to construction in a particular area.

Most of the information in this section is presented in tables 5 and 6, which show, respectively, estimates of soil properties significant in engineering and interpretations for various engineering uses.

This information, along with the soil map and other parts of this publication, can be used to make interpretations in addition to those given in tables 5 and 6. It also can be used to make other useful maps.

This information, however, does not eliminate the need for further investigation at sites selected for engineering works, especially works that involve heavy loads or require excavation to a depth greater than those shown in the tables, generally greater than 6 feet. Also, inspection of sites, especially small ones, is needed because many areas of a given mapping unit may contain small areas of other kinds of soil that have strongly contrasting properties and differ in suitability or limitations for engineering.

Some of the terms used in this soil survey have special meaning in soil science that may not be familiar to engineers. The Glossary defines many terms commonly used in soil science.

[4]NATHAN J. SCHILLER, JR., engineer, Soil Conservation Service, helped prepare this section.

TABLE 5.—*Estimates of soil properties*

[An asterisk in the first column indicates that at least one mapping unit in this series is made up of two or more kinds of soil. the instructions for referring to other series that appear in the first column of

Soil series and map symbol	Depth from surface (typical profile)	USDA texture	Classification		Percentage passing sieve—			
			Unified	AASHTO	No. 4 (4.7 mm)	No. 10 (2.0 mm)	No. 40 (0.42 mm)	No. 200 (0.074 mm)
	Inches							
*Alligator: Ag, At, Ax. For Galvez part of Ax, see Galvez series.	0–7	Clay, silt loam, silty clay loam, mucky silty clay loam.	MH, CL, CH, OL	A–7, A–6		100	95–100	80–100
	7–60	Clay	CH	A–7			100	95–100
Andry: AY.	12–0	Peat, mucky peat	Pt	A–8				
	0–13	Mucky silt loam, mucky silty clay loam.	OL, ML, CL, CL–ML	A–4, A–5			100	95–100
	13–60	Silt loam, silty clay loam	CL, ML, MH	A–6, A–7			100	95–100
Baldwin: Ba.	0–9	Silty clay loam	CL	A–6, A–7			100	95–100
	9–28	Clay, silty clay	OH	A–7			100	95–100
	28–72	Clay, silty clay, silty clay loam, silt loam.	CH, CL	A–7, A–6			100	95–100
Calhoun: Ca.	0–24	Silt loam	CL, ML, CL–ML	A–4			100	95–100
	24–60	Silt loam, silty clay loam	CL	A–6			100	95–100
	60–86	Silt loam	CL, CL–ML	A–6, A–4			100	95–100
Convent. Mapped only with Fausse and Newellton soils.	0–60	Stratified silt loam, very fine sandy loam, loamy very fine sand, silty clay loam, loam.	ML, CL–ML	A–4		100	95–100	85–100
Coteau: Co	0–5	Silt loam	ML, CL–ML	A–4			100	95–100
	5–43	Silty clay loam, silt loam	CL	A–6			100	95–100
	43–100	Silt loam	CL–ML, CL, ML	A–4, A–6			100	95–100
Delcomb: DE.	0–39	Hermic and sapric material.	Pt	A–8				
	39–46	Mucky silty clay loam	OL, ML, CL, CL–ML	A–4, A–6	100	100	100	95–100
	46–148	Silty clay loam, silt loam	CL, OL, ML	A–6, A–7	100	100	100	95–100
*Fausse: FA, FC, FE. For Convent part of FC, see Convent series.	1–0	Muck, mucky peat	Pt	A–8				
	0–10	Clay, mucky clay	CH, OH, MH	A–7	100	100	100	95–100
	10–60	Clay, silty clay	CH, MH	A–7	100	100	100	95–100
Frost: Fr, Fs.	0–16	Silt loam	CL–ML, CL	A–4	100	100	100	85–100
	16–60	Silty clay loam	CL	A–6, A–7	100	100	100	90–100
*Gallion: Ga. For Perry part, see Perry series.	0–9	Silt loam	ML, CL–ML	A–4	100	100	100	90–100
	9–19	Silty clay loam	CL	A–6	100	100	100	90–100
	19–66	Stratified silt loam, very fine sandy loam, loam, silty clay loam.	CL, CL–ML	A–4, A–6	100	100	100	90–100
Galvez: Gv.	0–9	Silt loam, loam	ML, CL–ML	A–4		100	100	90–100
	9–21	Silty clay loam, loam	CL	A–6		100	100	90–100
	21–60	Silt loam, very fine sandy loam.	CL, CL–ML	A–4, A–6		100	100	85–100
Iberia: Ia, Ib.	0–17	Silty clay, silty clay loam	CH, CL	A–7, A–6	100	100	100	95–100
	17–48	Clay, silty clay	CH	A–7	100	100	100	95–100
	48–75	Clay, silty clay loam, silt loam.	CH, CL	A–7, A–6	100	100	100	95–100

significant in engineering

The soils in such mapping units may have different properties and limitations, and for this reason it is necessary to follow carefully this table. The symbol > means more than; the symbol < means less than]

Liquid limit	Plasticity index	Permeability	Available water capacity	Reaction	Shrink-swell potential	Risk of corrosion to uncoated steel	Hazard of—		Subsidence potential
							Wetness	Flooding	
Percent		*Inches per hour*	*Inches per inch of soil*	*pH*					
12–85	33–55	0.6–2.0	0.12–0.22	4.0–5.5	High to very high.	High	Severe on Ag and Ax. Very severe on At.	None to slight on Ag and Ax. Severe on At.	None.
65–85	35–55	<0.06	0.12–0.18	4.5–5.5	Very high	High.			
				5.6–7.8		High	Very severe	Very severe	Low.
25–45	3–10	0.6–2.0	0.18–0.22	5.6–7.8	Low	High.			
35–55	11–16	0.2–0.6	0.17–0.19	6.6–8.4	Moderate	High.			
35–50	15–25	0.06–0.2	0.18–0.22	4.5–6.5	Moderate	High	Severe	None to slight	None.
51–75	25–45	<0.06	0.17–0.20	6.1–7.8	Very high	High.			
35–65	15–35	<0.2	0.17–0.21	6.6–8.4	High	High.			
<31	NP–10	0.2–0.6	0.21–0.23	5.1–6.0	Low	High	Severe	None to slight	None.
32–40	12–18	0.06–0.2	0.20–0.22	5.1–6.0	Moderate	High.			
26–35	5–15	0.2–0.6	0.21–0.23	5.1–6.0	Low	High.			
<27	NP–7	0.6–2.0	0.15–0.23	6.6–7.8	Low	Moderate	Moderate	Very severe on FC. Severe on NC.	None.
<27	NP–7	0.2–0.6	0.21–0.23	4.5–6.0	Low	High	Moderate	None to slight	None.
32–40	12–18	0.2–0.6	0.20–0.23	4.5–6.0	Moderate	High.			
25–37	5–15	0.2–0.6	0.20–0.23	5.6–6.0	Low	High.			
		>2.0		6.1–7.3		High	Very severe	Very severe	Medium.
28–40	3–13	0.6–2.0	0.22–0.25	7.4–7.8	Low	High.			
35–50	11–18	0.2–0.6	0.20–0.22	7.4–8.4	Moderate	High.			
		>2.0		5.6–7.3		High	Very severe	Very severe	Low.
60–90	30–52	<0.06	0.18–0.20	5.6–7.3	Very high	High.			
60–90	30–52	<0.06	0.18–0.20	6.1–8.4	Very high	High.			
25–31	5–10	0.2–0.6	0.21–0.23	4.5–5.5	Low	High	Severe	Moderate on Fr. None to slight on Fs.	None.
35–50	15–25	0.06–0.2	0.20–0.22	4.5–6.0	Moderate	High.			
<27	NP–7	0.6–2.0	0.21–0.23	4.5–6.0	Low	Low	None	None to slight	None.
32–40	11–17	0.6–2.0	0.20–0.22	5.6–8.4	Moderate	Moderate.			
23–35	4–15	0.6–2.0	0.20–0.23	5.6–8.4	Low	Low.			
<27	NP–7	0.6–2.0	0.21–0.23	4.5–7.3	Low	High	Moderate	None to slight	None.
30–40	11–18	0.2–0.6	0.20–0.22	5.1–7.8	Moderate	High.			
25–45	5–20	0.6–2.0	0.20–0.23	6.6–7.8	Low	High.			
25–70	11–40	<0.2	0.15–0.19	6.1–7.8	Very high	High	Severe to very severe.	Very severe on Ia. None to slight on Ib.	None.
51–75	25–45	<0.06	0.14–0.18	6.6–8.4	Very high	High.			
30–65	12–35	0.06–0.2	0.14–0.20	7.9–8.4	High to moderate.	High.			

TABLE 5.—*Estimates of soil properties*

Soil series and map symbol	Depth from surface (typical profile)	USDA texture	Classification		Percentage passing sieve—			
			Unified	AASHTO	No. 4 (4.7 mm)	No. 10 (2.0 mm)	No. 40 (0.42 mm)	No. 200 (0.074 mm)
	Inches							
*Jeanerette: Ja, Jn. For Coteau part of Jn, see Coteau series.	0–14	Silt loam, silty clay loam	CL–ML, CL	A–4, A–6	100	100	95–100	90–100
	14–36	Silty clay loam	CL	A–6, A–7	85–100	80–100	75–100	70–100
	36–60	Silt loam	CL, CL–ML	A–6, A–4	90–100	85–100	80–100	80–100
Lafitte: LA.	0–132	Hemic and sapric material.	Pt	A–8				
Loreauville: Lo.	0–8	Silt loam	ML, CL–ML, CL	A–4				95–100
	8–38	Silty clay loam, silt loam	CL	A–6	95–100	90–100	90–100	85–100
	38–60	Silt loam, very fine sandy loam, loam.	CL–ML, CL	A–4	95–100	90–100	90–100	85–100
Maurepas: MA.	0–102	Sapric material	Pt	A–8				
Memphis: Me, MH.	0–5	Silt loam	ML, CL–ML	A–4	100	100	100	90–100
	5–22	Silty clay loam	CL	A–6, A–7	100	100	100	90–100
	22–84	Silt loam	CL, CL–ML	A–4, A–6	100	100	100	90–100
*Newellton: NC. For Convent part, see Convent series.	0–15	Clay, silty clay	CH, CL	A–7	100	100	100	95–100
	15–66	Stratified silt loam, very fine sandy loam, loamy very fine sand, clay.	CL, CL–ML	A–4, A–6	100	100	95–100	85–100
Patoutville: Pa.	0–8	Silt loam	ML, CL–ML	A–4	100	100	100	95–100
	8–16	Silty clay loam	CL	A–6, A–7	100	100	100	95–100
	16–60	Silt loam, silty clay loam	CL	A–6, A–7, A–4	100	100	100	95–100
Perry. Mapped only with Gallion soils.	0–10	Silty clay loam	CL	A–6, A–7	100	100	100	95–100
	10–86	Clay	CH	A–7	100	100	100	95–100
Placedo: PC.	1–0	Mucky peat	Pt	A–8				
	0–29	Clay, silty clay with thin layers of very fine sandy loam, silt loam, sandy clay loam.	MH, CH	A–7	100	100	90–100	80–100
	29–60	Clay	CH	A–7	100	100	100	90–100
Scatlake: SC.	6–0	Mucky peat	Pt	A–8				
	0–6	Clay, mucky clay, mucky silty clay loam.	OH, MH	A–7	100	100	100	95–100
	6–60	Semifluid clay and mucky clay.	MH, OH	A–7	100	100	100	95–100
Sharkey: Sh, Sk.	0–36	Clay	CH	A–7	100	100	100	95–100
	36–60	Clay, silty clay	CH, CL	A–7, A–6	100	100	100	95–100

[1]NP = Nonplastic.

Engineering classification systems

The two systems (*17*) most commonly used in classifying samples of soils for engineering are the Unified system used by SCS engineers, the Department of Defense, and others, and the AASHTO system adopted by the American Association of State Highway and Transportation Officials.

In the Unified system soils are classified according to particle size distribution, plasticity, liquid limit, and organic-matter content. Soils are grouped in 15 classes. There are eight classes of coarse-grained soils, identified as GW, GP, GM, GC, SW, SP, SM, and SC; six classes of fine-grained soils, identified as ML, CL, OL, MH, CH, and OH; and one class of highly organic soils, identified as Pt.

The AASHTO system classifies soils according to

significant in engineering—Continued

Liquid limit	Plasticity index	Permeability	Available water capacity	Reaction	Shrink-swell potential	Risk of corrosion to uncoated steel	Hazard of—		Subsidence potential
							Wetness	Flooding	
Percent		*Inches per hour*	*Inches per inch of soil*	*pH*					
25–40	5–18	0.2–0.6	0.21–0.23	6.1–7.8	Low	High	Moderate	None to slight	None.
32–48	11–24	0.2–0.6	0.20–0.22	6.1–8.4	Moderate	High.			
23–40	4–17	0.2–0.6	0.21–0.23	7.9–8.4	Low	High.			
				6.1–8.4			Very severe	Very severe	High.
<31	NP–10	0.6–2.0	0.21–0.23	6.1–7.8	Low	High	Moderate	None to slight	None.
32–45	11–22	0.2–0.6	0.20–0.22	6.6–8.4	Moderate	High.			
23–31	4–10	0.6–2.0	0.21–0.23	6.6–8.4	Low	High.			
				5.6–6.5		High	Very severe	Very severe	High.
<28	NP–7	0.6–2.0	0.20–0.23	5.1–6.5	Low	Low	None	None to slight	None.
28–43	11–20	0.6–2.0	0.20–0.22	4.5–5.5	Moderate	Low.			
25–35	4–14	0.6–2.0	0.20–0.23	4.5–5.5	Low	Low.			
50–75	25–50	0.06–0.2	0.18–0.20	6.1–8.4	High to very high.	High	Moderate	Severe	None.
25–40	5–18	0.2–2.0	0.20–0.22	7.9–8.4	Low	High.			
<28	NP–7	0.2–0.6	0.22–0.23	4.5–6.0	Low	High	Moderate	None to slight	None.
30–50	13–25	0.06–0.2	0.20–0.22	5.6–7.3	Moderate	High.			
25–45	8–23	0.06–0.2	0.20–0.22	6.1–7.3	Moderate	High.			
35–50	16–25	0.06–0.2	0.17–0.20	5.1–6.0	Moderate	High	Severe	None to slight	None.
60–80	33–50	<0.06	0.17–0.20	4.5–8.4	Very high	High.			
				6.1–8.4		Low	Very severe	Very severe	Low.
51–90	25–55	<0.06	0.05–0.10	6.1–8.4	High.				
51–80	30–45	<0.06	0.03–0.09	7.9–8.4	Very high.				
				7.9–8.4		High	Very severe	Very severe	Medium.
55–90	15–45	<0.2	0.05–0.15	7.9–8.4	Moderate to very high.				
70–90	35–45	<0.06	0.05–0.15	7.9–8.4	Very high.				
56–85	30–50	<0.06	0.18–0.20	5.6–7.8	Very high	High	Severe	Severe on Sk. None to slight on Sh.	Low.
35–85	15–50	<0.06	0.18–0.22	5.6–8.4	High to very high.				

those properties that affect their use in highway construction and maintenance. In this system, a soil is placed in one of seven basic groups ranging from A-1 through A-7 on the basis of grain-size distribution, liquid limit, and plasticity index. Basic Group A-8 is for organic soils. In group A-1 are gravelly soils, which have high bearing strength and are the best soils for subgrade or foundation. At the other extreme, in group A-7, are clay soils, which have low strength when wet and are the poorest soils for subgrade. Where laboratory data are available to justify a further breakdown, the A-1, and A-7 groups are divided as follows: A-1-a, A-1-b, A-2-4, A-2-5, A-2-6, A-2-7, A-7-5, and A-7-6. As additional refinement, the engineering value of a soil material can be indicated by a group index number. Group indexes range from 0 for the best material

TABLE 6.—*Engineering*

[An asterisk in the first column indicates that at least one mapping unit in this series is made up of two or more kinds of soil. The the instructions for referring to other series that appear in the first column of this table.

Soil series and map symbol	Degree and kind of limitation for—					
	Septic tank absorption fields	Sewage lagoons	Shallow excavations	Dwellings without basements	Sanitary landfill[1] (trench type)	Local roads and streets
*Alligator:						
Ag, Ax	Severe: percs slowly; wet.	Slight	Severe: wet; too clayey.	Severe: wet; shrink swell; low strength.	Severe: wet; too clayey.	Severe: shrink swell; low strength; wet.
For Galvez part of Ax, see Galvez series.						
At	Severe: percs slowly; wet; floods.	Severe: floods	Severe: floods; wet; too clayey.	Very severe: floods.	Severe: floods; wet; too clayey.	Severe: floods; wet; low strength; shrink swell.
Andry: AY	Severe: floods; wet; percs slowly.	Severe: floods; excess humus; wet.	Severe: floods; wet.	Very severe: floods.	Severe: floods; excess humus; wet.	Severe: floods; wet; excess humus.
Baldwin: Ba	Severe: percs slowly; wet.	Slight	Severe: wet; too clayey.	Severe: wet; shrink swell; low strength.	Severe: wet; too clayey.	Severe: wet; shrink swell; low strength.
Calhoun: Ca	Severe: percs slowly; wet.	Severe: wet	Severe: wet; cutbanks cave.	Severe: wet	Severe: wet	Severe: wet
Convent	Severe: floods; wet.	Severe: floods; wet.	Severe: floods; wet; cutbanks cave.	Very severe: floods.	Severe: floods; wet.	Severe: floods
Mapped only with Fausse and Newellton soils.						
Coteau: Co	Severe: percs slowly; wet.	Severe: wet	Severe: wet	Moderate: wet; shrink swell; low strength.	Severe: wet	Moderate: wet; shrink swell; low strength.
Delcomb: DE	Severe: floods; wet.	Severe: floods; wet; excess humus.	Severe: floods; wet; cutbanks cave.	Very severe: floods; excess humus; wet; low strength.	Severe: floods; wet; excess humus.	Very severe: floods; excess humus; low strength; wet.
*Fausse: FA, FC, FE	Severe: floods; percs slowly; wet.	Severe: floods	Severe: floods; too clayey; wet.	Very severe: floods.	Severe: floods; wet; too clayey.	Severe: floods; wet; shrink swell; low strength.
For Convent part of FC, see Convent series.						
Frost:						
Fr	Severe: percs slowly; wet; floods.	Severe: wet; floods.	Severe: wet; floods.	Very severe: floods.	Severe: wet; floods.	Severe: wet; low strength; floods.
Fs	Severe: percs slowly; wet.	Severe: wet	Severe: wet	Severe: wet	Severe: wet	Severe: wet; low strength.
*Gallion: Ga	Moderate: percs slowly.	Moderate: seepage.	Slight	Moderate: shrink swell; low strength.	Moderate: too clayey.	Moderate: shrink swell; low strength.
For Perry part, see Perry series.						
Galvez: Gv	Severe: percs slowly; wet.	Severe: wet	Severe: wet	Moderate: wet; low strength; shrink swell.	Severe: wet	Moderate: low strength.
Iberia:						
Ia	Severe: floods; percs slowly; wet.	Severe: floods	Severe: floods; wet; too clayey.	Very severe: floods.	Severe: floods; wet; too clayey.	Severe: floods; wet; shrink swell; low strength.
Ib	Severe: percs slowly; wet.	Slight	Severe: wet; too clayey.	Severe: wet; shrink swell; low strength.	Severe: wet; too clayey.	Severe: wet; shrink swell; low strength.

interpretations

soils in such mapping may have different properties and limitations, and for this reason it is necessary to follow carefully Some terms in this table are explained in the glossary where they are identified by an asterisk]

Degree and kind of limitation for—Cont.					Suitability as source of—	
Small commercial buildings	Camp areas and playgrounds	Picnic areas, paths, and trails	Reservoir areas	Dikes, levees, and embankments	Road fill	Topsoil
Severe: wet; shrink swell; low strength.	Severe: wet; percs slowly; too clayey.	Severe: wet; too clayey.	Slight	Moderate: compressible; low strength; shrink swell.	Poor: shrink swell; low strength; wet.	Poor: wet; too clayey.
Severe: floods; wet; shrink swell; low strength.	Severe: floods; percs slowly; too clayey; wet.	Severe: floods; too clayey; wet.	Slight	Moderate: compressible; low strength; shrink swell.	Poor: shrink swell; low strength; wet.	Poor: wet; too clayey.
Severe: floods; wet; excess humus.	Severe: floods; wet; excess humus.	Severe: floods; wet; excess humus.	Moderate: seepage.	Severe: compressible; piping; low strength.	Poor: wet; excess humus.	Poor: wet; excess salt; excess humus.
Severe: wet; shrink swell; low strength.	Severe: wet; percs slowly.	Severe: wet	Slight	Moderate: compressible; low strength; shrink swell.	Poor: shrink swell; low strength; wet.	Poor: wet.
Severe: wet	Severe: wet	Severe: wet	Slight	Moderate: piping; erodes easily; low strength.	Poor: wet	Poor: wet.
Severe: floods	Severe: floods	Severe: floods	Moderate: seepage.	Moderate: erodes easily; piping; low strength.	Fair: low strength; wet.	Good.
Moderate: wet; shrink swell; low strength.	Moderate: wet; percs slowly.	Moderate: wet	Slight	Slight	Fair: shrink swell; wet; low strength.	Poor: thin layer.
Very severe: floods; excess humus; wet; low strength.	Severe: floods; wet; excess humus.	Severe: floods; wet; excess humus.	Very severe: seepage.	Very severe: unstable fill.	Very poor: excess humus; low strength; wet.	Very poor: excess humus; wet.
Severe: floods; wet; shrink swell; low strength.	Severe: floods; wet; too clayey; percs slowly.	Severe: floods; wet; too clayey.	Slight	Moderate: compressible; low strength; shrink swell.	Poor: shrink swell; wet; low strength.	Poor: wet; too clayey.
Severe: floods; wet.	Severe: wet; floods.	Severe: wet; floods.	Slight	Slight	Poor: low strength.	Poor: wet.
Severe: wet	Severe: wet	Severe: wet	Slight	Slight	Poor: low strength; wet.	Poor: wet.
Moderate: shrink swell; low strength.	Slight	Slight	Moderate: seepage.	Slight	Fair: low strength; shrink swell.	Good.
Moderate: wet; low strength; shrink swell.	Moderate: wet; percs slowly.	Moderate: wet	Moderate: seepage.	Slight	Poor: low strength.	Fair: thin layer.
Severe: floods; wet; low strength; shrink swell.	Severe: floods; percs slowly; too clayey; wet.	Severe: floods; too clayey; wet.	Slight	Moderate: compressible; low strength; shrink swell.	Poor: shrink swell; low strength; wet.	Poor: too clayey: wet.
Severe: wet; shrink swell; low strength.	Severe: wet; percs slowly; too clayey.	Severe: wet; too clayey.	Slight	Moderate: compressible; low strength; shrink swell.	Poor: wet; shrink swell; low strength.	Poor: wet; too clayey.

TABLE 6.—*Engineering*

Soil series and map symbol	Degree and kind of limitation for—					
	Septic tank absorption fields	Sewage lagoons	Shallow excavations	Dwellings without basements	Sanitary landfill[1] (trench type)	Local roads and streets
*Jeanerette: Ja, Jn. For Coteau part of Jn, see Coteau series.	Severe: percs slowly; wet.	Severe: wet.	Severe: wet.	Moderate: wet; shrink swell; low strength.	Severe: wet.	Moderate: low strength; shrink swell; wet.
Lafitte: LA	Severe: floods; wet.	Severe: floods; wet; seepage; excess humus.	Severe: floods; wet; cutbanks cave.	Very severe: floods; excess humus; wet; low strength.	Severe: floods; wet; excess humus; seepage.	Very severe: floods; excess humus; low strength; wet.
Loreauville: Lo	Severe: percs slowly; wet.	Severe: wet.	Severe: wet.	Moderate: wet; shrink swell; low strength.	Severe: wet.	Severe: low strength.
Maurepas: MA	Severe: floods; wet.	Severe: floods; wet; excess humus; seepage.	Severe: floods; wet; cutbanks cave.	Very severe: floods; excess humus; wet; low strength.	Severe: floods; wet; excess humus; seepage.	Very severe: floods; excess humus; low strength; wet.
Memphis:						
Me	Slight.	Moderate: slope; seepage.	Slight.	Moderate: low strength; shrink swell.	Slight.	Moderate: low strength; shrink swell.
MH	Moderate: slope.	Severe: slope.	Moderate: slope.	Moderate: low strength; shrink swell; slope.	Slight.	Moderate: low strength; shrink swell; slope.
*Newellton: NC. For Convent part, see Convent series.	Severe: floods; wet; percs slowly.	Severe: floods; wet.	Severe: floods; wet.	Very severe: floods.	Severe: floods; wet.	Severe: floods; low strength; shrink swell.
Patoutville: Pa	Severe: percs slowly; wet.	Severe: wet.	Severe: wet.	Moderate: wet; shrink swell; low strength.	Severe: wet.	Severe: low strength; shrink swell; wet.
Perry. Mapped only with Gallion soils.	Severe: percs slowly; wet.	Slight.	Severe: wet; too clayey.	Severe: wet; shrink swell; low strength.	Severe: wet; too clayey.	Severe: wet; shrink swell; low strength.
Placedo: PC	Severe: floods; percs slowly; wet.	Severe: floods.	Severe: floods; too clayey; wet.	Very severe: floods.	Severe: floods; wet; too clayey.	Severe: floods; wet; shrink swell; low strength.
Scatlake: SC	Severe: floods; wet; percs slowly.	Severe: floods; excess humus.	Severe: floods; wet; too clayey.	Very severe: floods.	Severe: floods; wet; too clayey.	Very severe: floods; wet; shrink swell; low strength.
Sharkey:						
Sh	Severe: percs slowly; wet.	Slight.	Severe: wet; too clayey.	Severe: wet; shrink swell; low strength.	Severe: wet; too clayey.	Severe: wet; shrink swell; low strength.
Sk	Severe: percs slowly; wet; floods.	Severe: floods.	Severe: floods; wet; too clayey.	Very severe: floods.	Severe: floods; wet; too clayey.	Severe: floods; wet; low strength; shrink swell.

[1]Onsite study is needed of the deep underlying strata, the water table, and the hazards of aquifer pollution and drainage into

interpretations—Continued

Degree and kind of limitation for—Cont.					Suitability as source of—	
Small commercial buildings	Camp areas and playgrounds	Picnic areas, paths, and trails	Reservoir areas	Dikes, levees, and embankments	Road fill	Topsoil
Moderate: wet; shrink swell; low strength.	Moderate: wet; percs slowly.	Moderate: wet	Moderate: seepage.	Moderate: compressible.	Poor: low strength.	Fair: thin layer.
Very severe: floods; excess humus; wet; low strength.	Severe: floods; wet; excess humus.	Severe: floods; wet; excess humus.	Very severe: seepage.	Very severe: unstable fill.	Very poor: excess humus; low strength; wet.	Very poor: excess humus; salt; wet.
Moderate: wet; shrink swell; low strength.	Moderate: wet; percs slowly.	Moderate: wet	Moderate: seepage.	Slight	Poor: low strength.	Fair: thin layer.
Very severe: floods; excess humus; wet; low strength.	Severe: floods; wet; excess humus.	Severe: floods; wet; excess humus.	Very severe: seepage.	Very severe: unstable fill.	Very poor: excess humus; low strength; wet.	Very poor: excess humus; wet.
Moderate: slope; low strength; shrink swell.	Slight in camp areas. Severe in playground areas: slope.	Slight	Moderate: seepage.	Moderate: compressible; piping.	Fair: low strength.	Good.
Severe: slope	Moderate in camp areas: slope. Severe in playground areas: slope.	Moderate: slope	Moderate: seepage.	Moderate: compressible; piping; erodes easily; low strength.	Fair: low strength.	Fair: slope.
Severe: floods; wet; low strength; shrink swell.	Severe: floods; too clayey.	Severe: floods; too clayey.	Slight	Moderate: compressible; low strength; shrink swell.	Poor to a depth of 15 inches: low strength. shrink swell. Fair between depth of 15 and 72 inches: low strength.	Poor: too clayey.
Moderate: wet; low strength; shrink swell.	Moderate: wet; percs slowly.	Moderate: wet	Slight	Slight	Fair: low strength.	Fair: thin layer.
Severe: wet; shrink swell; low strength.	Severe: wet; percs slowly; too clayey.	Severe: wet; too clayey.	Slight	Moderate: compressible; low strength; shrink swell.	Poor: shrink swell; low strength; wet.	Poor: wet; too clayey.
Severe: floods; wet; shrink swell; low strength.	Severe: floods; wet; percs slowly; too clayey.	Severe: floods; wet; too clayey.	Slight	Moderate: compressible; low strength; shrink swell.	Poor: wet; shrink swell; low strength.	Very poor: wet; salt.
Very severe: floods.	Severe: floods; wet; excess humus.	Severe: floods; wet; excess humus.	Moderate: seepage.	Very severe: unstable fill.	Very poor: excess humus; low strength.	Very poor: excess humus; salt.
Severe: wet; shrink swell; low strength.	Severe: wet; percs slowly; too clayey.	Severe: wet; too clayey.	Slight	Moderate: compressible; low strength; shrink swell.	Poor: shrink swell; wet; low strength.	Poor: wet; too clayey.
Severe: floods; wet; low strength; shrink swell.	Severe: floods; wet; percs slowly; too clayey.	Severe: floods; wet; too clayey.	Slight	Moderate: compressible; low strength; shrink swell.	Poor: shrink swell; wet; low strength.	Poor: wet; too clayey.

ground water in landfill deeper than 5 or 6 feet.

to 20 or more for the poorest. The estimated AASHTO classification, without group index numbers, is shown in table 5 for all soils mapped in the parish.

Estimated properties

Estimates of soil properties significant in engineering are shown in table 5. They are made for typical soil profiles, by layers that differ enough to differ significantly in soil engineering. The estimates are based on field observations made in the course of mapping, on test data for these and similar soils, and on experience with the same kinds of soil in other parishes. Following are explanations of some of the columns in table 5.

Soil texture is described in table 5 in the standard terms used by the Department of Agriculture. These terms take into account relative percentages of sand, silt, and clay in soil material that is less than 2 millimeters in diameter. "Loam," for example, is soil material that contains 7 to 27 percent clay, 28 to 50 percent silt, and less than 52 percent sand. If the soil contains gravel or other particles coarser than sand, an appropriate modifier is added, for example, "gravelly loamy sand." "Sand," "silt," "clay," and some of the other terms used in USDA textural classification are defined in the Glossary.

Liquid limit and *plasticity index* indicate the effect of water on the strength and consistence of soil material. As the moisture content of a clayey soil is increased from a dry state, the material changes from a solid to a semisolid to a plastic. If the moisture content is further increased, the material changes from a plastic to a liquid. The plastic limit is the moisture content at which the soil material changes from a semisolid to a plastic, and the liquid limit, from a plastic to a liquid. The plasticity index is the numerical difference between the liquid limit and the plastic limit. It indicates the range of moisture content within which soil material is plastic. Liquid limit and plasticity index are estimated in table 5.

Permeability is the quality that enables a soil to transmit water or air. It is estimated on the basis of soil characteristics observed in the field, particularly structure and texture. Lateral seepage, plowpans, and surface crusts are not considered in the estimates.

Available water capacity is the capacity of a soil to hold water for use by most plants. It is commonly defined as the difference between the amount of water in the soil at field capacity and the amount at the wilting point of most crop plants.

Reaction is the degree of acidity or alkalinity of a soil, expressed in pH values. The pH value and terms used to describe soil reaction are explained in the Glossary.

Shrink-swell potential is the relative change in volume to be expected of soil material with changes in moisture content, that is, the extent to which the soil shrinks as it dries out or swells when it gets wet. The amount of shrinking and swelling is influenced by the amount and kind of clay in the soil. Shrinking (fig. 10) and swelling of soils causes much damage to building foundations, roads, and other structures. A *high* shrink-swell potential indicates a hazard to maintenance of structures built in, on, or with material having this rating.

Risk of corrosion to uncoated steel, as used in table 5, pertains to potential soil-induced chemical action that dissolves or weakens uncoated steel. The rate of corrosion of uncoated steel is related to soil properties such as drainage, texture, total acidity, and electrical conductivity of the soil material. Installations of uncoated steel that intersect soil boundaries or soil horizons are more susceptible to corrosion than installations entirely in one kind of soil or in one soil horizon. A rating of *low* means that there is a low probability of soil-induced corrosion damage. A rating of *high* means that there is a high probability of damage and that protective measures for steel should be used to avoid or minimize damage.

The hazard of wetness is based on estimates of the length of time that free water stays in a soil after the saturation point has been reached. The hazard in this parish is expressed as *none, slight, moderate, severe,* and *very severe.* A rating of *none* indicates that free water generally stays in the soil for less than 3 days after a saturating rain. A rating of *slight* indicates that water stays in the soil for more than 3 days but less than 30 days after a saturating rain. A rating of *moderate* indicates that free water stays in the soil more than 1 month but less than 3 months after a saturating rain. A rating of *severe* indicates that free water stays in the soil for more than 3 months but is at or near the surface for less than 4 months. A rating of *very severe* indicates that free water is at or near the surface for more than 4 months.

The hazard of flooding is the risk of flooding as a result of stream overflow, runoff from adjacent areas, or local accumulations of water. The soils affected and the depth and duration of floods vary considerably with the severity of each rainstorm. The ratings shown in table 5 are intended only for general guidance. Local records should be used for a more accurate estimate of the hazard of flooding on a particular soil. The hazard is *none to slight* for soils that are not subject to flooding or that are flooded less than once in 15 years. The remote possibility of flooding as a result of breaks in the levee system on the Mississippi and Atchafalaya Rivers is included in this class. The hazard is *moderate* if the soil is flooded at least once in 15 years. It is *severe* if the soil is flooded one or more times each year. It is *very severe* if the soil is almost continuously flooded.

Subsidence potential rates the probability of settlement of organic soils or soils that contain semifluid mineral layers. Ratings for subsidence take into account (1) rapid initial loss of elevation that results from drainage and lowering of the water table; and (2) later and slower loss of elevation that results from oxidation of organic material. The maximum possible loss of surface elevation is called *subsidence potential.* The ratings are *none; low,* 0 to 3 inches; *medium,* 3 to 16 inches; *high,* 16 to 51 inches; and *very high,* more than 51 inches.

Figure 10.—Cracks in Alligator clay. This soil has a high shrink-swell potential.

Depth to bedrock for soils in the parish is greater than the depth to which the soils were investigated in field mapping and is not estimated in table 5.

A seasonal high water table is the highest level that ground water reaches in the soil in most years. The months when the water table is highest and the depth below the surface is given in the mapping unit description in the section "Descriptions of the Soils."

Engineering interpretations

The information in table 6 is based on the estimates of engineering properties shown in table 5, on test data for soils in the parish and other nearby or adjoining parishes, and on the experience of engineers and soil scientists with the soils of Iberia Parish. In table 6, the degree of limitation of a soil for specified purposes is expressed as *slight, moderate, severe,* and *very severe. Slight* means that soil properties are generally favorable for the specified use and limitations are minor and easily overcome. *Moderate* means that some soil properties are unfavorable but can be overcome or modified by special planning and design. *Severe* indicates soil properties so unfavorable and so difficult to correct or overcome that major soil reclamation, special design, or intensive maintenance is required. *Very severe* indicates one or more soil properties so unfavorable for a particular use that overcoming the limitation is most difficult and costly and is commonly not practical.

Soil suitability is expressed as *good, fair, poor,* and *very poor,* which have, respectively, meanings approximately parallel to the terms slight, moderate, severe, and very severe.

Following are explanations of some of the columns in table 6.

Septic tank absorption fields are subsurface systems of tile or perforated pipe that distribute effluent from a septic tank into natural soil. The soil material between depths of 18 inches and 6 feet is evaluated. The soil properties considered are those that affect both absorption of effluent and construction and operation of the system. Properties that affect absorption are permeability, depth to water table, and susceptibility to flooding. Slope affects difficulty of layout and construction and also the risk of soil erosion, lateral seepage, and downslope flow of effluent. Septic tank absorption fields must be installed according to State and local health ordinances.

Sewage lagoons are shallow ponds constructed to hold sewage within a depth of 2 to 5 feet long enough

for bacteria to decompose the solids. A lagoon has a nearly level floor, and sides, or embankments, of compacted soil material. It is assumed that the embankment is compacted to medium density and the pond is protected from flooding. Properties that affect the pond floor and the embankment are considered. Those that affect the pond floor are permeability, content of organic matter, and slope. The soil properties that affect the embankment are the engineering properties of the embankment material as interpreted from the Unified Soil Classification.

Shallow excavations are those that require digging or trenching to a depth of less than 6 feet, as for example, excavations for pipelines, sewer lines, phone and power transmission lines, basements, open ditches, and cemeteries. Desirable soil properties are good workability, moderate resistance to sloughing, gentle slopes, and freedom from flooding or a high water table.

Dwellings without basements and *small commercial buildings,* as rated in table 6, are no more than three stories high and are supported by foundation footings in undisturbed soil. The features that affect the rating of a soil for dwellings are those that relate to capacity to support load and resist settlement under load and those that relate to ease of excavation. Soil properties that affect capacity to support load are wetness, susceptibility to flooding, and shrink-swell potential. Those that affect excavation are wetness and slope.

Sanitary landfill (trench type) is a method of disposing of refuse in dug trenches. The waste is spread in thin layers, compacted, and covered with soil throughout the disposal period. Landfill areas are subject to heavy vehicular traffic. Some soil properties that affect suitability for landfill are ease of excavation, hazard of polluting ground water, and trafficability. The best soils have moderately slow permeability, withstand heavy traffic, and are friable and easy to excavate. Unless otherwise stated, the ratings in table 6 apply only to a depth of about 6 feet, and therefore limitation ratings of *slight* or *moderate* may not be valid if trenches are to be much deeper than that. For some soils, reliable predictions can be made to a depth of 10 or 15 feet, but regardless of that, every site should be investigated before it is selected.

Local roads and streets, as rated in table 6, have an all-weather surface expected to carry automobile traffic all year. They have a subgrade of underlying soil material; a base consisting of gravel, crushed rock, or soil material stabilized with lime or cement; and a flexible or rigid surface, commonly asphalt or concrete. These roads are graded to shed water and have ordinary provisions for drainage. They are built mainly from soil at hand, and most cuts and fills are less than 6 feet deep.

Soil properties that most affect design and construction of roads and streets are load-supporting capacity and stability of the subgrade, and the workability and quantity of cut-and-fill material available. The AASHTO and Unified classifications of the soil material, and also the shrink-swell potential, indicate traffic-supporting capacity. Wetness and flooding affect stability of the material. Slope and wetness affect ease of excavation and amount of cut and fill needed to reach an even grade.

Camp areas and playgrounds are used intensively for outdoor activities. Soils suitable for these uses need to withstand intensive foot traffic. The best soils have a nearly level surface, good drainage, and a surface that is firm after rains but not dusty when dry.

Picnic areas are attractive natural or landscaped areas that are subject to heavy foot traffic. Most of the heavy vehicular traffic, however, is confined to access roads. The best soils have good drainage, are firm when wet but not dusty when dry, are free from flooding during the season of use, and do not have slopes that greatly increase the cost of leveling sites or of building access roads.

Paths and trails are used for local and cross-country travel by foot or horseback. Design and layout should require little or no cutting and filling. The best soils are at least moderately well drained, are firm when wet but not dusty when dry, are flooded no more than once during the season of use, have slopes of less than 15 percent, and have few or no rocks or stones on the surface.

Reservoir areas hold water behind a dam or embankment. Soils suitable for reservoir areas have low seepage, which is related to their permeability and depth to permeable material.

Dikes, levees, and other embankments require soil material resistant to seepage and piping and of favorable stability, shrink-swell potential, shear strength, and compactibility. Presence of organic material in a soil is among factors that are unfavorable.

Road fill is soil material used in embankments for roads. The suitability ratings reflect (1) the predicted performance of soil after it has been placed in an embankment that has been properly compacted and provided with adequate drainage and (2) the relative ease of excavating the material at borrow areas.

Topsoil is used for topdressing an area where vegetation is to be established and maintained. Suitability is affected mainly by ease of working and spreading the soil material, as in preparing a seedbed; natural fertility of the material, or its response of plants when fertilizer is applied; and absence of substances toxic to plants. Texture of the soil material affects suitability, but also considered in the ratings is damage that will result at the area from which topsoil is taken.

Formation and Classification of the Soils

This section describes the factors of soil formation and their effects on the soils in Iberia Parish. It also explains the processes of soil formation and defines the classification of the soils according to the current system. This section also contains the results of laboratory analysis of selected soils in the parish.

Factors of Soil Formation

Soil is the product of the interaction of climate, living organisms (especially vegetation), parent material, and relief over a period of time. Each of these factors modifies the effect of the other four. Significant differences in one of the factors result in differences in soil characteristics.

Climate and vegetation are the active forces in soil formation. Relief, mainly by its influence on drainage, modifies the effects of time, climate, and living organisms. The parent material also affects the kind of profile that can be formed and, in extreme cases, determines it almost entirely. Finally, time is needed for the other factors to change parent material into soil.

Climate

Iberia Parish has the subtropical, humid climate that is characteristic of areas near the Gulf of Mexico. The warm, moist climate has promoted rapid soil formation. Climate is uniform throughout the parish, although its effect is modified locally by relief. The minor climate differences within the parish are not considered significant enough to create soil differences. Detailed information about climate is given on page 61.

Living organisms

Living organisms, including plants, bacteria, fungi, and animals, are important in the formation of soils. Among the chemical and physical changes they cause are gains in content of organic matter and nitrogen, gains or losses in content of plant nutrients, and changes in structure and porosity. Plant roots force openings into the soil and modify porosity. As they grow, they break up and rearrange the soil particles. Plants transfer nutrients from the subsoil to the surface layers and, when they die, supply humus to the soils. Bacteria decompose organic matter and help improve the physical condition of the soil. Animals, such as crawfish and earthworms, also influence soil formation by mixing the soil. When animals die, they form humus, which is a source of nutrients.

Man's activities, such as cultivation, fertilization, channel construction, harvesting, burning, draining, diking, flooding, and land smoothing, affect the soil. Some soils of Iberia Parish have been changed significantly by man's activities. The native vegetation and the associated complex communities of bacteria and fungi generally have had a greater influence on soil formation in this parish than other living organisms.

Most soils of the alluvial plain, upland terrace, and salt domes formed under forest vegetation. However, grass vegetation affected the formation of some soils. The black surface layer of Iberia, Jeanerette, and Loreauville soils is attributed to the grass vegetation.

Soils of the marsh formed under grass and sedge vegetation (*14*). The thick layers of organic material of Lafitte and Delcomb soils accumulated in freshwater. As the land surface subsided, the area was flooded with freshwater from rains and runoff. Paille fine, sawgrass, giant cutgrass, cattail and California bulrush were some of the freshwater plants that formed the organic material. The buildup of organic material kept pace with subsidence. Further land subsidence and sea level rise introduced seawater over the area. With change in salinity Intermediate and Brackish Marsh types of vegetation (*3*) became established, namely, marshhay cordgrass, big cordgrass, needlegrass rush, saltmarsh bulrush, olney bulrush, and seashore saltgrass. The soils of the tidal swamp formed similarly to the soils of the marsh. The organic material of Maurepas soils formed under a forest of cypress, tupelo, and maple that had an understory of savannah panicum and sawgrass. Flooding by saline seawater is presently causing the vegetation on these soils to gradually change to the Intermediate and Brackish Marsh types (*3*).

Parent material

Parent material is the unconsolidated mass in which soil forms. It determines the chemical and mineralogical composition of the soils. It also influences the degree of leaching, the reaction, texture, permeability, and drainage, and the kind and color of the surface and subsoil layers. Textural differences in parent material are accompanied by differences in chemical and mineral composition. In general, soils that form in silty and sandy parent material have a lower capacity to hold nutrients than those that form in clay.

Soils of Iberia Parish formed in alluvial and marine sediments, loess deposits, and accumulations of organic material.

The alluvium is from the Mississippi River, Red River, and Atchafalaya River. Bordering the past and present stream channels are low ridges called natural levees. These levees are highest next to the channels and slope gradually away from it. The levees are shaped by the loss of velocity of waters that overspread the streambanks (*19*). When the water slows, it first drops sand, then silt, and finally clay particles. Thus, the soils on the higher parts of natural levees formed in loamy material that has a moderate sand content. These soils are generally lighter colored, more permeable, and better drained than the soils on the lower part and beyond the natural levees. Examples are Gallion, Galvez, Loreauville, and Convent soils. On the lower part of the natural levees and beyond the natural levees in the backswamps are the clayey sediments dropped from slowly moving or still water. Alligator, Sharkey, Iberia, Baldwin, Perry, and Fausse soils formed in this type of material. The Placedo and Scatlake soils also formed in clayey alluvium, but they contain some marine sediment.

Loess is fine-grained material, dominantly of silt-size particles, that was deposited by wind. These deposits are practically free of sand-size particles and in Iberia Parish are 4 to 15 feet thick. The loess is on the terrace upland and salt domes. It is under most of the mainland marsh. Soils formed from loess have moderate to slow permeability. Memphis, Coteau, Calhoun, Frost, Patoutville, and Jeanerette soils on the terrace upland and salt domes and also the Andry soils in the firm marsh formed in this type of material.

Organic material accumulates in areas that are sat-

urated or flooded with water. Water prevents the complete oxidation and decomposition of the plant residue. Water, vegetation, and time coupled to a sea-level rise and a land subsidence created the conditions from which thick layers of organic material accumulated in the marshes and tidewater swamps of Iberia Parish. The buildup of organic material kept pace with land subsidence and sea-level rise. The Delcomb and Lafitte soils formed in herbaceous organic material 18 to 120 inches thick. The Maurepas soils formed in woody organic material 60 to 120 inches thick.

Time

The differences in the length of time that parent material has been exposed to the active forces of soil formation are commonly reflected in the degree of formation of the soil profile.

The youngest parent material in this parish is that deposited in the Atchafalaya Basin Floodway by the Atchafalaya River. The oldest is the loess material that blankets the terrace uplands and salt domes.

The influence of time on soil formation is well illustrated by comparing the profiles of Galvez and Convent soils. Galvez soils formed in older alluvial parent material. They have been partly leached of carbonates and other soluble salts and are medium acid in the A horizon and the upper part of the B horizon. Colloidal clays have moved downward from the A horizon to form a strongly defined B horizon of silty clay loam. Organic matter has accumulated in the A horizon. In contrast, Convent soils formed in young alluvium and have not been in place long enough for a B horizon to form. Convent soils receive frequent deposits of alluvium from the Atchafalaya River. They are typically mildly alkaline and contain bedding planes in all layers.

Relief

Relief and its effects on drainage have had an important influence on the formation of the soils in the parish. For example, the Sharkey soils on the alluvial plain and the Frost soils on the terrace uplands are at low elevations and therefore receive runoff from the higher soils. They are poorly drained and have a high water table, to which the gray color in the B horizon is attributed.

Memphis soils are on the sloping areas of the salt domes. They have medium to high runoff and moderate permeability. They are therefore well drained, a fact to which their brownish B horizon is attributed.

Organic soils such as the Maurepas and Lafitte series formed in low areas that are too wet for the oxidation of organic material. This has resulted in the formation of soils that have thick organic layers.

Processes of Soil Formation

The older soils in Iberia Parish have distinct horizons, and the younger soils have faint horizons. The degree of horizonation in mineral soils is the result of one or more of the following processes: (1) accumulation of organic matter; (2) leaching of soluble carbonates and bases; (3) reduction, solution, and transfer of iron and manganese; and (4) formulation and translocation of silicate clay minerals. In most mineral soils in the parish, three or more of the processes have influenced the formation of horizons.

Organic matter has accumulated to form an A1 horizon in most of the soils in the parish. Iberia and Jeanerette soils, which formed under grass, have a thick, very dark-colored surface horizon that contains moderate amounts of organic matter even after many years of cultivation. Coteau and Memphis soils, both of which formed under forest vegetation, have a lighter colored surface horizon and less organic matter than Iberia and Jeanerette soils.

Solution and leaching of soluble carbonates and bases has occurred in nearly all of the mineral soils. Leaching of bases usually precedes translocation of silicate clay minerals. The degree of leaching and the extent of influence on horizon formation vary. Memphis, Coteau, and Calhoun soils are examples of older, more leached soils in the Parish on the highest relief. They have been leached of soluble carbonates and bases. Soluble carbonates have been leached from the A horizon and the upper part of the B horizon and precipitated as concretions in the lower horizons in the Jeanerette and Loreauville soils. The recently deposited Convent soils are neutral or mildly alkaline throughout the profile and have been affected little by leaching.

Alligator and Sharkey soils and other poorly drained and very poorly drained soils in this parish have horizons that formed mainly through a process called gleization. The process includes reduction, solution, and transfer of iron and manganese. In these soils, which are alternately wet and dry, the iron compounds are reduced to a soluble form, and gray colors predominate. When drainage is impeded or the water table is high, anaerobic microorganisms remove oxygen from the water; this oxygen deficiency results in the reduction of iron and manganese. Oxidized forms of iron and manganese are reduced to the more soluble divalent forms which may be leached from the soils, or they rise to the surface of waterlogged soils and form segregated iron and manganese concretions. Iron and manganese concretions are evident in some very poorly drained, poorly drained, and somewhat poorly drained soils in this parish. Gleyed horizons are evident in all the poorly drained and very poorly drained soils.

The formation and translocation of silicate clay minerals have contributed to the formation of distinct horizons in many of the mineral soils of the parish. In this process, clay and iron compounds are removed from the uppermost soil layers. The bleached, light-colored A2 horizon on the Coteau, Calhoun, and Frost soils is an example of an eluviated horizon from which iron compounds and clay have been removed. In many soils in the parish, a B2t horizon has formed through the accumulation of translocated colloidal or sequoixide clays. The B2t horizon generally is finer textured than the A, B3, and C horizons. Memphis silt loam, for example, has a silt loam Ap horizon, a silty clay loam B2t horizon, and silt loam B3 and C horizons (see

table 8). A more obvious evidence of the downward movement of clay is the presence of clay films on the structural surfaces in the B2t horizon of many soils. Baldwin, Patoutville, and Frost soils are good examples of soils that have a well-defined B2t horizon within which clay films are on the faces of peds.

The formation of organic soils is not attributed to the above mineral soil-forming processes. Organic soils formed in organic material that accumulated under saturated or flooded conditions. The organic material gradually accumulates and thickens as low coastal land areas subside and the sea level rises.

Classification of the Soils

Soils are classified so that we can more easily remember their significant characteristics. Classification enables us to assemble knowledge about the soils, to see their relationship to one another and to the whole environment, and to develop principles that help us to understand their behavior and their response to manipulation. First through classification and then through use of soil maps, we can apply our knowledge of soils to specific fields and other tracts of land.

The narrow categories of classification, such as those used in detailed soil surveys, allow us to organize and apply knowledge about soils in managing farms, fields, and woodlands; in developing rural areas; and in planning engineering projects. The broad categories of classification facilitate study and comparison in large areas such as countries and continents.

The system of soil classification currently used was adopted by the National Cooperative Soil Survey in 1965 (*23*). Because this system is under continual study, readers interested in developments of the current system should research the latest literature.[5]

The current system of classification has six categories. Beginning with the broadest, these categories are *order, suborder, great group, subgroup, family,* and *series.* In this system the criteria used as a basis for classification are soil properties that are observable and measurable. The properties chosen are those that result in the grouping of the soils of similar mode or origin. In table 7, the soil series of Iberia Parish are placed in four categories of the current system. Classes of the current system are briefly defined in the following paragraphs.

ORDER. Ten soil orders are recognized. The properties used to differentiate orders are those that tend to give broad climatic groupings of soils. The two exceptions to this are the Entisols and Histosols, both of which occur in many different climates. Each order is named with a word of three or four syllables ending in *sol.* Inceptisol is an example.

SUBORDER. Each order is divided into suborders on the basis of soil characteristics that result in grouping soils according to genetic similarity. The suborders narrow the broad climatic range permitted in the orders. The properties considered are mainly those that reflect either the presence or absence of waterlogging or the soil differences resulting from the climate or vegetation. The names of suborders have two syllables. The last syllable indicates the order. An example is *Aquept (Aqu,* meaning water or wet, and *ept,* from Inceptisol).

GREAT GROUP. Each suborder is divided into great groups on the basis of uniformity in the kind and sequence of major soil horizons and features. The horizons considered are those in which clay, iron, or humus have accumulated; those in which pans interfere with growth of roots, movement of water or both; and those in which thick, dark-colored surface horizons have formed. The features used are the self-mulching properties of clay, soil temperature, major differences in chemical composition (mainly calcium, magnesium, sodium, and potassium), dark-red and dark-brown colors associated with basic rocks, and the like. The name of a great group has three or four syllables and is made by adding a prefix to the name of the suborder. An example is Haplaquept (*Hapl,* meaning simple horizons, *aqu* for wetness or water, and *ept,* from Inceptisol).

SUBGROUP. Each great group is divided into subgroups, one representing the central (typic) segment of the group, and others, called intergrades, having properties of the group and also one or more properties of another great group, suborder, or order. Subgroups are also established if soil properties intergrade outside the range of any other great group, suborder, or order. The names of subgroups are derived by placing one or more adjectives before the name of the great group. An example is Vertic Haplaquepts (a cracking Haplaquept).

FAMILY. Families are established within each subgroup, primarily on the basis of properties important to the growth of plants or on the behavior of soils when used in engineering structures. Among the properties considered are texture, mineralogy, reaction, temperature, permeability, thickness of horizons, and consistence. A family name consists of a series of adjectives preceding the subgroup name. The adjectives are the class names for texture, mineralogy, and so on. An example is the very fine, montmorillonitic, acid, thermic family of Vertic Haplaquepts.

SERIES. A series is a group of soils that formed in a particular kind of parent material and have genetic horizons that, except for texture of the surface layer, are similar in characteristics and in arrangement of layers in the soil profile. Among the characteristics are color, structure, reaction, consistence, and mineral and chemical composition.

Laboratory Data[6]

Data are collected on soils to catalogue soil prop-

[5]See chapters 3, 4, 8, 10, 12, 13 and 18 in the unpublished working document "Selected Chapters from the Unedited Text of the Soil Taxonomoy" available in the SCS State Office, Alexandria, La.

[6]This section was prepared by WARREN C. LYNN, soil scientist, Soil Survey Laboratory, Soil Conservation Service, Lincoln, Nebraska.

TABLE 7.—*Soil series classified according to the current system of classification*

Series	Family	Subgroup	Order
Alligator[1]	Very fine, montmorillonitic, acid, thermic	Vertic Haplaquepts	Inceptisols.
Andry	Fine-silty, mixed, thermic	Typic Argiaquolls	Mollisols.
Baldwin	Fine, montmorillonitic, thermic	Vertic Ochraqualfs	Alfisols.
Calhoun	Fine-silty, mixed, thermic	Typic Glossaqualfs	Alfisols.
Convent	Coarse-silty, mixed, nonacid, thermic	Aeric Fluvaquents	Entisols.
Coteau	Fine-silty, mixed, thermic	Glossaquic Hapludalfs	Alfisols.
Delcomb	Loamy, mixed, euic, thermic	Terric Medisaprists	Histosols.
Fausse	Very fine, montmorillonitic, nonacid, thermic	Typic Fluvaquents	Entisols.
Frost[2]	Fine-silty, mixed, thermic	Typic Glossaqualfs	Alfisols.
Gallion	Fine-silty, mixed, thermic	Typic Hapludalfs	Alfisols.
Galvez	Fine-silty, mixed, thermic	Aeric Ochraqualfs	Alfisols.
Iberia	Fine, montmorillonitic, thermic	Vertic Haplaquolls	Mollisols.
Jeanerette	Fine-silty, mixed, thermic	Typic Argiaquolls	Mollisols.
Lafitte	Euic, thermic	Typic Medisaprists	Histosols.
Loreauville	Fine-silty, mixed, thermic	Udollic Ochraqualfs	Alfisols.
Maurepas	Euic, thermic	Typic Medisaprists	Histosols.
Memphis	Fine-silty, mixed, thermic	Typic Hapludalfs	Alfisols.
Newellton[3]	Clayey over loamy, montmorillonitic, nonacid, thermic	Aeric Fluvaquents	Entisols.
Patoutville	Fine-silty, mixed, thermic	Aeric Ochraqualfs	Alfisols.
Perry[4]	Very fine, montmorillonitic, nonacid, thermic	Vertic Haplaquepts	Inceptisols.
Placedo[5]	Fine, montmorillonitic, nonacid, hyperthermic	Typic Fluvaquents	Entisols.
Scatlake	Very fine, montmorillonitic, nonacid, thermic	Typic Hydraquents	Entisols.
Sharkey	Very fine, montmorillonitic, nonacid, thermic	Vertic Haplaquepts	Inceptisols.

[1]The Alligator soils in mapping unit Ag are taxadjuncts to the Alligator series because their A horizon is black. The Alligator soils in mapping units At and Ax are taxadjuncts to the Alligator series because their A horizon is black, they are extremely acid in the upper 10 inches, and they are strongly acid between depths of 10 and 24 inches.

[2]The Frost soils in mapping unit Fr are taxadjuncts to the Frost series. They have a darker A horizon than is defined as the range for the Frost series.

[3]The Newellton soils in Iberia Parish are taxadjuncts to the Newellton series because they have thin, reddish layers.

[4]The Perry soils in mapping unit Ga are taxadjuncts to the Perry series because their B horizon has hue of 5Y.

[5]The Placedo soils in Iberia Parish are slightly cooler than is defined as the range for the Placedo series.

erties, to help us understand how soils form, and to aid in soil classification. Laboratory data supplement the field description. Sampling sites are selected so the data may be extended to other mapping units that carry the same soil names. Sampling in Iberia Parish was concentrated on organic soils because comparatively little information is available on these soils.

Methods of sampling and analysis

Organic soils formed in low-lying areas that are covered with water most of the time. In Iberia Parish landscapes, the mineral surface slopes gently southward, away from the terrace upland and toward the Gulf of Mexico. The thickness of organic soil increases, correspondingly, away from the terrace upland. Six sites were sampled in the marsh: two in shallow organic material less than 16 inches thick; two in moderately deep organic material 16 to 52 inches thick; and two in deep organic material more than 51 inches thick. Two swamp sites were sampled in deep organic material. Water samples were collected at most of the marsh and swamp sites. Two sites were sampled in an upland position on Avery Island. Data from one of each pair of sites are shown in tables 8 and 9. Data on water samples are shown in table 10.

Samples are typically taken from pits dug to expose the layers or horizons of the soil. Because sampling sites were in flooded marsh and swamp areas, it was not possible to examine pit walls. Soil material was removed by layers using a tile spade or a post-hole digger and was laid on tarpaper for describing and sampling. Soil samples were kept moist after sampling.

For the methods used in analysis, see Soil Survey Investigations Report No. 1 (*25*). Column headings in tables 8, 9, and 10 contain code numbers that are keyed to SSIR No. 1. For the reader's convenience, the methods are briefly described here.

Base saturation is the sum of exchangeable bases divided by the cation exchange capacity.

Bulk density (4A3a) and water content is determined by using cores or carved blocks of soil.

Cation exchange capacity (5A6a) is determined by ammonium acetate equilibriation and distillation of absorbed ammonia.

CES/Clay (8D1) is the cation exchange capacity per 100 grams of clay.

C/N is the ratio of organic carbon to total nitrogen.

COLE (4D1) (coefficient of linear extensibility) is the linear expansion from an air-dry or oven-dry state to ⅓-bar moisture state. It is based on an air-dry sample.

Electrical conductivity (8A1a) is determined by using the extract from saturated soil paste.

ESP (exchangeable sodium percentage) (5D2) is the amount of exchangeable sodium divided by the cation exchange capacity.

Exchangeable cations (5B1b) are determined by using an ammonium acetate (pH 7) extract. Potas-

sium chloride-triethanolamine extract is used for calcium and magnesium when solid carbonates are present. Instrumental analyses are the same as those for soluble cations. Values have been corrected for soluble salts.

Extractable acidity (6H1a) is determined by using a barium chloride-triethanolamine (pH 8.2) extract.

Fiber content by volume is the percent of sample retained on a 100-mesh (0.15-millimeter openings) sieve. An unrubbed sample is washed through the sieve under a stream of water until the effluent is clear. A rubbed sample is rubbed between thumb and forefinger during the washing process.

Mineral content is the residue left after the sample is heated overnight at 400°C.

N-value is the grams of water associated with one gram of clay.

Organic matter is the weight of organic carbon (6A1a) dissolved by chromic acid digestion and multiplied by a factor of 1.724.

Particle size (3A1) is determined by the pipette method.

Reaction is determined by a glass electrode in 0.01 molar solution of calcium chloride.

Residue is the proportion of the original thickness remaining. The undried sample never became air dried. The dried sample was air dried and remoistened. Only the mineral component remains in the minimum sample. All organics are dissipated.

Resistivity (8A2) is the electrical resistance of a saturated soil paste in a standardized cell.

SAR (5E) (sodium absorption ratio) is an estimate of the potential sodium hazard.

Soluble anions (8A1) are determined by using the extract from a saturated soil paste.

Soluble cations (8A1) are determined by using the extract from a saturated soil paste.

WRD (water retention difference) (4C1) is the difference in water content between an undisturbed sample at ⅓-bar moisture tension and a disturbed sample at 15-bar moisture tension. *Undried* means samples for a ⅓-bar and 15-bar tension were not previously air dried. *Dried* means the ⅓-bar moisture content was measured for clods that were air dried and rewet. The 15-bar moisture content was measured on air-dried material.

Nature of the organic soil material

The bulk of the organic material builds up from the residue of hydrophytic grasses, sedges, and forbs, and is preserved by the reducing conditions prevalent in marshes and swamps. To a depth of 1 foot, the organic soil contains a mat of live roots. Most of the organic soils in Iberia Parish are in saline marshes, which are gradually encroaching landward through regional subsidence and a rise in sea level. Freshwater marshes and swamps are changing to saline marshes.

The organic soils in Iberia Parish are well decomposed compared with organic soils in other areas of the United States. Rubber fiber, a measure of physical stability, is less than 10 percent of the original volume, except in the surface root mat. Solubility in sodium pyrophosphate, a measure of chemical instability, is indicated by the dark Munsell color notations. Stable material has a Munsell value of 7 or more and chroma of 2 or less.

Organic soils have low bulk density in the undrained or natural state. The bulk density increases after drainage, but is still low compared with that of mineral soils. Water content is inversely related to the bulk density, especially in organic soils. The lower the bulk density, the higher the water content. The listed percentage figures may seem unreasonably high, but this is because the value is really a ratio of the weight of water to the weight of oven-dry solid material, and not a true percentage.

Organic soils have a higher exchange capacity than mineral soils. Because of the low weight of the organics, however, the number of exchange sites available in a given volume of material is not too different from that of mineral soils. Exchangeable cations reflect the saline water system, and higher proportions of magnesium and sodium than is common are found in upland soils of the region. Base saturation is more than 90 in most samples. Resistivity and electrical conductivity values also indicate saline water conditions.

Nature of the mineral soil material

Mineral soil material beneath the organic soils was sampled for analysis. Memphis soil on Avery Island was sampled for comparison of particle size and the kinds of clay minerals.

The mineral soils, with three exceptions, have similar particle-size distributions. Clay content is about 20 to 35 percent. Sand content is less than 2 percent. The distribution is consistent with that of loess. The mineral material in Lafitte S69La-23-4 is high in clay. This suggests an alluvial deposit associated with the Mississippi River distributary system.

The relatively high sand content in Andry S69La-23-2 results from carbonate cementation. The higher sand content in the IIB3 horizon of Memphis S69La-23-11 indicates at least an admixture of material other than loess.

In the shallow organic soils, several mineral layers were sampled. The clay distribution in the successive layers is consistent with the presence of an argillic horizon and the associated eluvial horizon, such as that found in Jeanerette soils.

The pH of both mineral and organic soils reflects the influence of saline water. The pH is essentially the same in water and in 0.01 molar calcium chloride, and there is little decrease in pH upon drying. No acid sulfate soils should develop upon drainage.

Clay minerals of mineral soils beneath the marsh fall into three categories, depending on the type and amount of smectite, which is a group name for expanding clays, including montmorillonite. Delcomb S69La-23-6 and S69La-23-9 have small amounts of poorly ordered smectite much like the Memphis S69La-23-11 on Avery Island and like a pedon of a Memphis

TABLE 8.—*Physical and chemical*

[Numbers for the various test methods are shown in parentheses

Soil name and sample number	Horizon	Depth from surface	Particle size (3–A–1)				Organic matter	Mineral content	Fiber		Sodium pyrophosphate color 10YR—
			Sand (2–0.05 mm)	Silt		Clay (0.002 mm)			Unrubbed	Rubbed	
				Coarse (0.05–0.02 mm)	Fine (0.02–0.002 mm)						
		Inches	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	
Andry:	O21	14–7					43	53	39	17	6/4
S69La–23–2	O22	7–0					26	66	34	9	6/3
	A11	0–5	1.7	26.7	42.0	29.6	8	93			
	A12	5–11	1.6	29.1	41.1	23.2	2	98			
	A3	11–20	1.3	25.0	37.7	36.0	1	99			
	B21cag	20–37	7.1	26.2	36.8	29.9	<1	99+			
	B22g	37–51	3.3	28.6	42.4	25.7	<1	99+			
S69La–23–5	O21	12–6					44	59	48	28	7/3
	O22	6–0					53	48	42	18	6/3
	A1	0–6	1.0	32.0	46.8	20.2	7	94			
	B1tg	6–13	.8	33.1	45.6	20.5	1	99			
	B21tg	13–26	.8	28.5	41.0	29.7	1	99			
	B22tg	26–33	1.4	27.3	38.5	32.8	<1	99+			
	B3g	33–48	2.2	28.3	39.7	29.8	<1	99+			
Delcomb:	Oi	0–3					43	61	47	19	7/3
S69La–23–6	Oe	3–12					52	53	43	15	5/3
	Oa1	12–23					59	35	45	9	5/2
	Oa1	23–33					60	41	41	8	3/3
	Oa2	33–39					30	60	42	9	5/3
	IIA11g	39–46	.6	30.8	42.0	26.6	6	94			
	IIA12g	46–52	.7	35.3	40.3	23.7	1	99			
	IIC1g	52–58	.5	27.8	37.9	33.8	1	99			
Lafitte:	Oe	0–16					69	24	42	20	5/3
S69La–23–4	Oa1	16–30					47	53	32	7	5/3
	Oa1	30–43					50	44	28	8	5/3
	Oa1	43–53					58	38	47	4	7/2
	Oa2	53–63					64	27	42	3	6/3
	Oa3	63–90					53	47	30	2	4.5/3
	Oa4	90–132						38			
	IICg	132–138	.3	.9	9.0	89.8					
Maurepas:	Oa1	0–12					71	18	53	2	6/4
S69La–23–3	Oa2	12–27					74	14	52	1	7/3
	Oa3	27–36					79	14	52	2	6/3
	Oa3	36–50					76	17	53	13	6/3
	Oa3	50–102						17	58	28	5/4
	IICg	102–108					18				
Memphis:	B21t	4–18	.4	32.4	42.1	25.1					
S69La–23–11	B32t	32–46	.5	35.5	44.2	19.8					
	IIB35	75–91	16.2	31.8	32.4	19.6					

[1] Trace.

soil in Lafayette Parish (S70La-28-2). Clays in the two Andry pedons (S69La-23-2 and S69La-23-5) have moderate amounts of moderately well-ordered smectite much like the clay in a pedon of a Jeanerette soil in Lafayette Parish (S70La-28-1). Clays in Delcomb S69La-23-7, Lafitte S69La-23-4, and Maurepas S69La-23-3 and S69La-23-8 are dominated by very well ordered smectite much like clays found in Mississippi River alluvium.

Interpretation of soil data

The particle-size distribution and the kinds of clay minerals in mineral soil material suggest that a blanket of loess was deposited over southern Iberia Parish at a time in the past when the entire area was above sea level. The loess was exposed to weathering and soil formation long enough to move clay materials downward in the soil. Clays on well-drained sites were like Memphis soils. Soils on somewhat poorly drained sites were like Jeanerette soils.

Regional subsidence and a rise in sea level caused the area to be inundated. Saline marshes developed adjacent to the Gulf of Mexico. Freshwater marshes and swamps developed farther inland. As the region

test data for selected soils

in the column headings. The symbol < means less than]

Bulk density (field state) (4A3a)	Water content (field state) (4B4)	Cation exchange capacity (5A6a)	Reaction in 0.01m $CaCl_2$	WRD (4C1)		N-value	COLE (4D1)	Residue			CEC/ Clay (8D1)	C/N	Carbonate (6E1b)
				1/3-bar tension	15-bar tension			At 1/3 bar		Minimum (dry)			
				Undried	Dried			Undried	Dried				
gr/cc	*Percent*	*Meq/100g*	*pH*	*Cm/cm*	*Cm/cm*			*Cm/cm*	*Cm/cm*	*Cm/cm*	*Meq/g*		*Percent*
	510.0		6.4									17	
	270.0		6.7									16	
0.67	105.0	28.3	6.8	0.46	0.23	1.89	0.26	1.05	0.66		0.96	17	
	33.7	19.3	7.4			.73					.68	19	
1.25	42.4	27.5	7.3	.19	.18	.77	.047	.92	.91		.76	14	
1.40	39.5	20.4	7.2	.24	.22	.79	.092	1.01	1.02		.68		9
	29.6	20.4	7.1			.52					.79		2
	428.0		6.6									18	
	576.0		6.1							.11		16	
	63.4	21.1	6.5	.28	.23	1.31	.10	.98	.94		1.04	20	
	34.8	11.2	7.0	.18	.22	.82	.028	.93	.95		.55	20	
	39.0	13.2	6.6	.21	.18	.77	.037	.87	.90		.44		
	39.0	13.5	6.6			.72					.41		
	38.7	14.5	6.6			.77					.48		(1)
.17	432.0		6.3	.35				.94	.40	.07		17	
.13	566.0		6.4	.29				.93	.32	.04		24	
.10	858.0		6.6	.43				.63	.15	.02		16	
.12	733.0		6.6	.45				.71	.23	.04		18	
.19	613.0		6.6	.51	.15			.37	.23	.08		17	
	80.2	21.5	6.7			1.54					.81		
1.17	41.1	14.7	7.4	.20	.24	.98	.028	.87	.87		.62		
1.20	48.5	17.8	7.3	.24	.17	.97	.052	.88	.87		.53		
.09	841.0	77.9	6.1	.28				.69		.02		23	
.10	850.0	85.9	6.7	.35				.50	.16	.02		18	
.10	860.0	78.0	6.9	.48				.45		.02		19	
.11	860.0	109.0	6.8	.45				.69		.03		16	
.13	700.0	109.0	6.7	.53				.40		.04		18	
	633.0	87.4	6.8									19	
	663.0												
.12	683.0		5.8	.44				.57		.04		32	
.13	670.0		6.1							.04		16	
.08	845.0		6.2	.42				.50		.01		21	
	816.0		6.2									20	
	988.0		6.6										

continued to subside, however, saline marshes encroached into freshwater marshes and swamps. Tree stumps in present day saline marshes are evidence of saltwater encroachment. The buildup of organic soil keeps pace with landward encroachment of the marsh.

The principal source of salts in saline marshes is the Gulf of Mexico. Calcium is selectively removed by aquatic shell formers to make calcium carbonate shells. Sulfate is selectively reduced and removed in some layers by anaerobic bacteria that need the associated oxygen. As a result the salt composition in saline marshes does not reflect directly the composition of sea water. Exchangeable cations show a higher proportion of calcium because it is selectively absorbed by both organic and mineral soil material. Samples equilibrated in the laboratory to obtain soluble salts indicate higher levels of soluble calcium than apparently is true in the field. Concretions of calcium carbonate in Andry S69La-23-2 probably formed after the area became a marsh.

As a byproduct of sulfate reduction, sulfides are produced and may precipitate as iron sulfides. A buildup of sulfides may cause an acid sulfate soil once the

TABLE 9.—*Chemical test*

[Numbers for the various test methods are

Soil name and sample number	Horizon	Depth from surface	Soluble cations (8A1)					Sodium-absorption ratio (5E)	Conductivity (8A1a)	Soluble anions (8A1)	
			Ca (6N1b)	Mg (6O1b)	Na (6P1a)	K (6Q1a)	Sum			HCO_3 (6J1a)	Cl (6K1a)
		Inches	*Meq/l*	*Meq/l*	*Meq/l*	*Meq/l*	*Meq/l*		*Mmhos/cm*	*Meq/l*	*Meq/l*
Andry:	A11	0–5	19.3	26.3	56.5	1.1	103.2	12	9.38	0.0	54.2
S69La–23–2	A12	5–11	15.0	18.5	53.0	.7	87.2	13	8.41	.0	50.9
	B22g	37–51	[1]8.5	[2]7.5	44.5	.2	60.7	16	6.51	1.3	52.3
Delcomb:	IIA11g	39–46	25.0	42.5	55.0	2.2	124.7	9	10.40	.0	49.4
S69La–23–6	IIA12g	46–52	19.3	33.3	47.0	2.1	101.7	9	8.71	.2	38.1
Lafitte:	Oe	0–16	3.1	9.0	40.0	1.6	53.7	16	5.80	.9	47.2
S69La–23–4	Oa1	16–30	8.5	26.0	70.0	1.9	106.4	17	10.40	.4	81.7
	Oa2	30–43	11.0	36.3	89.0	2.1	138.4	18	13.00	.2	106.3
Maurepas:	Oa1	0–6	1.3	2.7	21.5	.9	26.4	15	2.91	1.8	22.7
S69La–23–8	Oa5	37–48	5.8	13.5	29.0	.9	49.2	9	4.88	.4	27.5

[1]Based on Investigations Method 6N4c.
[2]Based on Investigations Method 6Q4c.
[3]Trace.

land is drained and oxidized.

Characteristics of drained organic soils

Organic soils form in an inundated environment and are stable in that environment. If the water is removed, and oxidizing conditions prevail, the organic material is no longer stable. The physical instability, apparent immediately as a loss of water buoyancy, results in consolidation of materials and subsidence of the surface. The lower the content of resistant fibers, the greater the consolidation and initial subsidence. In Iberia Parish, subsidence is least in the marsh surface where the mat of live roots gives strength to the material. Laboratory indicators of initial subsidence suggest the residue of organics will be from 40 to 70 percent of the original volume for layers below the surface and 70 to 90 percent in the surface, where samples become air-dry. If the upper 12 inches becomes air dry and the rest stays moist, with the water table maintained at 40 inches below the surface, shrinkage upon air drying (initial subsidence) would be 49 percent in Delcomb S69La-89-6 and 53 percent in Lafitte S69La-23-4. Mineral sediments that have never dried undergo consolidation and subsidence when drained. Initial subsidence is less than for organic material; residue ranges from 70 to 85 percent of the original volume.

After initial subsidence, mineral soils stabilize. Or-

TABLE 10.—*Water test data*

[Numbers for the various test methods are shown in parentheses in the column headings]

Soil name and sample number	Source of water sample	Soluble cations					Sodium-absorption ratio (5E)	Conductivity (8A1a)
		Ca (6N1b)	Mg (6O1b)	Na (6P1a)	K (6Q1a)	Sum		
		Meq/l	*Meq/l*	*Meq/l*	*Meq/l*	*Meq/l*		*Mmhos/cm*
Andry:								
S69La–23–2	Surface water	1.0	5.5	37.5	0.7	44.7	21	4.74
S69La–23–5	Ground water	1.6	6.2	35.5	.5	43.8	18	4.72
Delcomb:								
S69La–23–6	Ground water	.2	11.8	59.5	.9	72.4	24	7.65
S69La–23–7	Ground water	2.9	6.6	47.1	.7	57.3	22	6.05
Lafitte: S69La–23–9	Surface water	.1	6.8	33.4	.5	40.8	18	4.29
Maurepas:								
S69La–23–3	Ground water	.2	11.0	47.1	.8	59.1	20	6.38
S69La–23–8	Ground water		3.4	23.0	.3	26.7	18	3.12
S69La–23–8	Canal water	.4	6.0	132.0	.8	139.2	74	14.30
	Average seawater	20	106	459	10	595	58	42

data for selected soils
shown in parentheses in the column headings]

Soluble anions (8A1)—Cont.		Resistivity (8A2)	Exchangeable cations (5B1b)					Extractable acidity (6H1a)	Base saturation	Exchangeable sodium (5D2)
SO_4 (6L1a)	Sum		Ca (6N2e)	Mg (6O2d)	Na (6P2a)	K (6Q2a)	Sum			
Meq/l	*Meq/l*	*Ohms*	*Meq/100g*	*Meq/100g*	*Meq/100g*	*Meq/100g*	*Meq/100g*	*Meq/100g*	*Percent*	*Percent*
54.7	108.9	230	12.8	10.6	2.4	0.7	26.5	13.9	94	8
42.2	93.1	280	9.0	7.5	2.2	.5	19.2	7.9	99	11
9.9	63.5	360	9.1	6.8	3.8	.2	19.9	.....	98	19
84.1	133.5	280	7.2	8.6	2.7	1.0	19.5	9.2	91	9
73.8	111.9	290	3.4	6.2	1.7	.7	12.0	.....	79	9
7.8	55.9	360	23.1	29.0	8.9	1.3	62.3	.....	80	11
30.2	112.3	210	32.5	45.7	23.5	.8	102.5	.....	119	23
39.8	146.3	140	34.6	53.9	23.7	.3	116.1	.....	107	27
.0	24.5	600	32.2	37.6	17.4	1.9	89.1	.....	87	17
21.9	49.8	390	40.7	45.0	8.0	(3)	93.7	.....	104	8

ganic soils do not. Oxidation and dissipation of the organic material causes continued subsidence. Subsidence estimates of ½ inch to 2 inches per year have been recorded in various parts of the country. In southern Louisiana drained organic material is lost at a rate of slightly more than 1 inch per year, in areas under cultivation. Forty inches of organic soil material after initial subsidence could be expected to last 40 years under good cropping practices. Continued subsidence can be minimized by keeping the water table as high as practicable for as much of the year as possible.

Additional Facts About the Parish

The climate, farming, landforms and geologic history, and water and nonrenewable resources of Iberia Parish are described on the pages that follow.

Climate[7]

Iberia Parish is in the south-central division of Louisiana. This subtropical, humid climatic region is affected alternately by flows of warm, moist, maritime tropical air moving northward and cold, dry continental air moving southward. Transitions from one flow to another bring significant, and sometimes abrupt, weather changes. Table 11 is a summary of temperature and precipitation data.

Summers are consistently warm. Maximum temperatures rarely exceed 100° F, however, because the parish is near the Gulf of Mexico. At New Iberia, 101° was recorded on July 28, 1960. Temperatures of 90° or warmer can be expected on from 60 days or fewer to more than 100 days each year during the period May through September.

Winters are comparatively mild. Most years have one or more days when the temperature drops to 32° or colder. At New Iberia, 6° was recorded on February 13, 1899. Temperatures of 32° or colder may be expected from late in October to late in March, with individual years having fewer than 10 to more than 25 days.

Precipitation occurs on about 2 days out of 7 each year. Rainfall is primarily of the shower type. Periods of prolonged rain sometimes occur during winter and spring, but are not frequent.

During the cooler months, the usual weather pattern is rain followed by cool weather, then several balmy days with moderating temperatures, and then another rain. Snowfall is unimportant; the average amount is less than an inch per year, and many years pass with no snow. Amounts of several inches have been measured in rare storms during January and February. The storm of February 14 and 15, 1895, left 13.5 inches at New Iberia. Glaze or ice storms are rare. Table 12 shows the probabilities of last freezing temperatures in spring and the first in fall.

Thunderstorms occur in all seasons; most months have one or more days with thunder; the annual average is 70 to 80 days. Almost all warm-season rain days have thunder and lightning. These are most frequent in June, July, and August, and occur mostly between early morning and early evening. Fall and winter have far fewer thunderstorms; the least frequent are in November and January. Cool-season thunderstorms are associated with passing weather systems (fronts and squall lines), may occur at any hour, and usually have higher winds than those during summer. Torrential rains also occur in the parish. In 5 years in 10 the

[7]This section was prepared by GEORGE W. CRY, climatologist for Louisiana, National Weather Service, U.S. Department of Commerce, Baton Rouge, Louisiana.

TABLE 11.—*Temperature and precipitation*
[All data from New Iberia 5NW, elevation 30 feet]

Month	Temperature				Precipitation		
	Average daily maximum	Average daily minimum	Average maximum	Average minimum	Average total	One year in 10 will have—	
						Less than—	More than—
	°F	°F	°F	°F	*Inches*	*Inches*	*Inches*
January	63	43	77	24	4.0	1.8	6.6
February	66	45	78	28	4.6	1.5	8.2
March	71	50	83	33	3.9	.7	8.2
April	79	59	88	44	4.6	.8	8.5
May	85	65	92	53	4.4	1.4	8.3
June	90	70	95	62	5.5	2.3	9.1
July	91	72	96	68	7.5	3.4	12.2
August	91	72	96	65	5.7	2.7	9.3
September	88	67	94	54	4.2	1.4	7.4
October	81	57	89	41	3.2	.9	6.1
November	72	48	83	30	3.0	.5	6.5
December	66	44	78	26	5.1	2.5	8.0
Year	[1]79	[2]58	97	20	55.7	43.2	65.7

[1]Average annual highest temperature. [2]Average annual lowest temperature.

maximum daily rainfall is more than 5.5 inches. In 1 year in 10 it is more than 8.7 inches.

Occasional periods of prolonged dry, hot weather result in agricultural drought in some years. Some locations in Iberia Parish have recorded periods longer than 1 month when no rain fell. Dry fall weather in many years assists harvests.

Evaporation from Class A Weather Service pans provides some information on water losses experienced by soils and crops. The mean annual pan evaporation is about 67 inches, of which 67 percent, or 45 inches, evaporates from May through October. Pan evaporation is a maximum or potential value. Mean annual open-lake evaporation is about 49 inches. The actual soil moisture loss is less, since soil moisture availability is sometimes limited.

TABLE 12.—*Probabilities of last freezing temperatures in spring and first in fall*
[All data from New Iberia 5NW, elevation 30 feet]

Probability	Dates for given probability and temperature		
	24° F or lower	28° F or lower	32° F or lower
Spring:			
1 year in 10 later than	February 2	March 5	March 23
2 years in 10 later than	January 25	February 22	March 13
5 years in 10 later than	January 13	February 1	February 23
Fall:			
1 year in 10 earlier than	December 13	November 13	October 29
2 years in 10 earlier than	December 23	November 23	November 6
5 years in 10 earlier than	January 8	December 10	November 22

The annual mean relative humidity is about 77 percent. Humidity values of less than 30 percent are rare, averaging less than 1 percent of the hours during the year. Humidity of more than 80 percent totals about 49 percent of the hours, and is most frequent in summer, during early mornings, and during periods of rain. Heavy fog occurs during night and early morning at times, but rarely lasts through the day.

Sunshine averages about 60 percent of the possible annual value, or a total of slightly less than 2,800 hours per year.

Windspeeds are generally under 10 miles per hour, except during storm periods, including tropical storms and hurricanes, when speeds may exceed 50 miles per hour, with substantially higher brief gusts. Wind directions average southerly except in fall, when they are most frequent easterly. At a standard 30-foot instrument elevation, it is estimated that a sustained windspeed of 90 to 95 miles per hour has a 50-year mean recurrence in Iberia Parish.

Farming

The number of farms in the Parish in 1969 was 591. Land in farms was 131,051 acres. Eighty percent of the acreage in farms was in 128 farms. Total cropland in the parish was 92,871 acres. About 53,412 acres was harvested, 11,533 acres was grazed, and 27,926 acres was in soil improving crops, fallow, or idle. There were 8,591 acres of irrigated land. Irrigated land is used mostly for rice and grazed fallow rice land. There were 8,714 cows in the parish, of which 3,528 were milk cows.

Sugarcane is the principal crop (fig. 11). Acreage planted to sugarcane for sugar and seed ranged from 40,906 acres to 32,360 acres during the period 1959

Figure 11.—Planting sugarcane on Galvez silt loam.

through 1970. Yields of sugarcane ranged from 23.42 to 27.88 tons per acre during this period (*1*). About 6,562 acres of rice is grown annually. Other crops grown in the parish are corn, soybeans, okra, and peppers. The total acreage of these crops grown annually is less than 6,000 acres.

Landforms and Quaternary Geologic History of the Parish[8]

Iberia Parish records an almost complete suite of classic alluvial landforms and geology characteristics of southern Louisiana. An old terrace formed by ancestral Mississippi Rivers in late Pleistocene (glacial) time occurs in the western part of the parish; large natural levee ridges laid down by the Teche-Mississippi River about 5,000 to 6,000 years ago trend through the central part of the area; and swamp and marsh, characteristic of the contemporary Atchafalaya Basin and Marsh Island, are found along the eastern and southern margins of the parish. Yet above this low-lying terrain stand Jefferson, Avery, and Weeks islands, three of the five major surface salt domes in south-central Louisiana.

Prairie formation

West of New Iberia the topography is slightly undulating, characteristic of the Prairie Formation, stream-borne sediments laid down by ancestral channels of the Mississippi River in late Pleistocene time (*5*). Traces of old Mississippi River meander loops are still apparent on topographic maps and aerial photographs, especially in the northern part of Iberia Parish a few miles west of Spanish Lake.

Most of the Prairie Formation in this region was apparently deposited when sea level was higher than at present, probably during interglacial time. The part of the Prairie Formation in Iberia Parish is known as the "Vermilion Prairie," for the present Vermilion River to a great degree follows the old Mississippi meander loops, which debouched into an ancient deltaic plain far seaward from the present Gulf Coast.

Following deposition of the Prairie Formation, windblown silt (loess) mantled the terrace surface and the extruding salt domes. The loess, 15 feet thick near New Iberia, thins westward about 6 inches per mile, burying a distinctive post-Prairie palesol. The loess is thought to be derived from a source under the

[8]This section was prepared by ROY J. SELMON, associate professor, Department of Marine Sciences, Coastal Studies Institute. Louisiana State University.

present Mississippi Valley, east of Iberia Parish (*4*).

In late Prairie time, the lower course of the Mississippi River shifted to the east, occupying channels in what is now Terrebonne Parish. This phase of Prairie deposition ended when sea level was lowered about 400 feet during the last major glaciation (Wisconsin), and the Mississippi River entrenched its alluvial valley (*6*). During this time the meandering Mississippi River scalloped the walls along the western side of its valley, forming a 25-foot escarpment in central Iberia Parish, separating the older Prairie terrace on the west from the younger backswamp and Bayou Teche natural levees on the east.

Bayou Teche.—With the rise of sea level to near its present position about 6,000 years ago, the Mississippi River cut a series of channels and deltaic plains across its alluvial valley. One of the oldest, laid down some 5,000 years ago, is now occupied by Bayou Teche (*7*). The great width of natural levees bordering Bayou Teche, often more than 2 miles, attests to the fact that the channel once carried the full flow of an ancient Mississippi River. Subsequently the Mississippi occupied new courses farther to the east. But the Teche channel was never completely abandoned. Indeed, several red-colored natural levees, inset and approximately 10 feet lower than old Mississippi-Teche levees, show that the Red River flowed at least once down the present channel (*10*).

Marsh Island.—Borings show that the top of the late Pleistocene Prairie Formation underlies Marsh Island at depths ranging from 30 feet below present sea level on the north to minus 60 feet on the south side of the island (*15*). About 6,000 to 10,000 years ago, during a temporary standstill in the post-glacial rise of sea level, the Mississippi River prograded seaward, laying down a complex of deltaic lobes, the sediments of which covered and extended at least 30 miles seaward from the present south coast of Marsh Island (*7*). When the Teche Mississippi came into being several distributaries extended into the present Marsh Island. Remnants of old natural levees of Bayou Cypremort are found buried by at least 10 feet of younger marsh sediments (*27*).

After sea level reached its approximate present level, about 5,000 years ago, the Mississippi River periodically occupied new channels and deltaic systems east of Marsh Island. At least three "waves" of fine-grained sediment, derived from these younger Mississippi deltaic lobes, were swept westward along the coast and deposited on the present Marsh Island. In the last few hundred years, however, an increasing amount of Mississippi River sediment has been carried down the present channel and delta to be "lost" off the continental slope. Hence Marsh Island and adjacent coastal areas of south-central Louisiana are losing land at an estimated rate of 16.5 square miles per year (*9*).

Atchafalaya Basin.—The eastern part of Iberia Parish extends across pristine swamps and lakes of the Atchafalaya Basin, lying between natural levee systems of Bayou Teche on the west and Bayou Lafourche on the east. The Atchafalaya River, the main Mississippi distributary, carries about 30 percent of Mississippi River plus the entire Red River flow. As a result the lakes and backswamps of the Atchafalaya Basin are being rapidly filled. Increasingly, sediment is now carried through the system and is reaching Atchafalaya Bay. There a submarine delta has begun to form. If not regulated by man, it is anticipated that the 350-square-mile Atchafalaya Bay will be filled with deltaic sediment by about the year 2020 (*20*). An important geological consequence of this deltaic progradation is the strong likelihood of new lands being accreted to the south coast of Marsh Island. Already mud flats are forming west of the Island, the sediments being derived from the newly developing Atchafalaya Delta (*13*).

Salt domes.—The most dramatic topographic features in Iberia Parish are Jefferson, Weeks, and Avery Islands, three of the five major surface salt domes in south-central Louisiana. These domes, standing at elevations of approximately 75, 120, and 150 feet, respectively, above the nearly featureless marsh and terrace terrain, have long been mined for salt. Their origin is complex and is thought to be caused primarily by piercement of overlying sediments by the salt forced upward by regional subsidence and differences in specific gravity between the salt and surrounding sediments (*11*). Parts of the salt domes have collapsed because of subsurface solution. This phenomenon has produced topographic features, such as Lake Peigneur on Jefferson Island (*10*).

In addition to their economic value for salt and subsurface traps for oil, the salt domes of Iberia Parish have yielded important archeological data. In particular, recent excavation on Avery Island has revealed the preservation of delicate basketry and cordage. Radiocarbon dates of surrounding sediments suggest that these finds are more than 10,000 years old, and thus are perhaps the earliest artifacts of this type found in the New World (*8*).

Water and Nonrenewable Resources

Underground freshwater sources yield large quantities of hard water. Wells range in depth from 200 feet to more than 700 feet and yield as much as 4,000 gallons per minute. Yields generally range from 1,000 to 2,000 gallons per minute. Water levels range in depth from 20 to 70 feet below the land surface. (*18*).

Surface sources of fresh water are Lake Dauterive, Lake Fausse Pointe, Bayou Teche, Bay Natchez, and the Atchafalaya River. Streams and waterways associated with these sources are also fresh.

Vermilion bay and its associated water bodies are saline. The salinity level ranges from near fresh to gulf strength. The headwaters of streams that flow into the bay are seasonally fresh. During periods of low rainfall and high tides they become saline.

Oil, gas, and salt are the principal nonrenewable resources of Iberia Parish. Oil and gas fields are located in all areas of the parish. Three of the world's largest salt mines are located on the piercement-type domes of Jefferson Island, Avery Island, and Weeks Island.

Glossary

[Asterisks indicate terms used in table 6]

Alluvial plain (geological). A flood plain produced by the filling of a valley bottom with alluvium. It commonly extends from valley wall to valley wall.

Alluvium. Soil material, such as sand, silt, or clay, that has been deposited on land by streams.

Atchafalaya Basin Floodway. A part of a complex flood control system operated by the U.S. Corps of Engineers and designed to protect the lives in densely populated southern Louisiana. Since 1963 control locks have diverted about 30 percent of the water in the lower Mississippi River into the Atchafalaya River Distributary (*20*).

Cation exchange capacity. The sum total of exchangeable cations absorbed by a soil, expressed in milliequivalents per 100 grams of soil.

Clay. As a soil separate, the mineral soil particles less than 0.002 millimeter in diameter. As a soil textural class, soil material that is 40 percent or more clay, less than 45 percent sand, and less than 40 percent silt.

Clay film. A thin coating of clay on the surface of a soil aggregate. Synonyms: Clay coat, clay skin.

***Compressible.** Excessive decrease in volume of soft soil under load.

Concretions. Grains, pellets, or nodules of various sizes, shapes, and colors consisting of concentrations of compounds, or of soil grains cemented together. The composition of some concretions is unlike that of the surrounding soil. Calcium carbonate and iron oxide are examples of material commonly found in concretions.

Consistence, soil. The feel of the soil and the ease with which a lump can be crushed by the fingers. Terms commonly used to describe consistence are—

Loose.—Noncoherent when dry or moist; does not hold together in a mass.

Friable.—When moist, crushes easily under gentle pressure between thumb and forefinger and can be pressed together into a lump.

Firm.—When moist, crushes under moderate pressure between thumb and forefinger, but resistance is distinctly noticeable.

Plastic.—When wet, readily deformed by moderate pressure but can be pressed into a lump; will form a "wire" when rolled between thumb and forefinger.

Sticky.—When wet, adheres to other material, and tends to stretch somewhat and pull apart, rather than to pull free from other material.

Hard.—When dry, moderately resistant to pressure; can be broken with difficulty between thumb and forefinger.

Soft.—When dry, breaks into powder or individual grains under very slight pressure.

Cemented.—Hard and brittle; little affected by moistening.

***Cutbanks cave.** Unstable walls of cuts made by earthmoving equipment. The soil sloughs easily.

Diversion, or diversion terrace. A ridge of earth, generally a terrace, that is built to divert runoff from its natural course and, thus, to protect areas downslope from the effects of such runoff.

Drainage class (natural). Refers to the conditions of frequency and duration of periods of saturation or partial saturation that existed during the development of the soil, as opposed to 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. Seven different classes of natural soil drainage are recognized.

Excessively drained soils are commonly very porous and rapidly permeable and have a low water-holding capacity.

Somewhat excessively drained soils are also very permeable and are free from mottling throughout their profile.

Well-drained soils are nearly free from mottling and are commonly of intermediate texture.

Moderately well drained soils commonly have a slowly permeable layer in or immediately beneath the solum. They have uniform color in the A and upper B horizons and mottling in the lower B and C horizons.

Somewhat poorly drained soils are wet for significant periods but not all the time, and some soils commonly have mottling at a depth below 6 to 16 inches.

Poorly drained soils are wet for long periods and are light gray and generally mottled from the surface downward, although mottling may be absent or nearly so in some soils.

Very poorly drained soils are wet nearly all the time. They have a dark-gray or black surface layer and are gray or light gray, with or without mottling, in the deeper parts of the profile.

Erosion. The wearing away of the land surface by wind (sandblast) running water, and other geological agents.

***Excess salts.** High content of water soluble salts. Excessive salts restrict the growth of most plants.

Fallow. Cropland left idle in order to restore productivity, mainly through accumulation of water, nutrients, or both. Summer fallow is a common stage before cereal grain in regions of limited rainfall. The soil is tilled for at least one growing season to control weeds, to aid decomposition of plant residues, and to encourage the storage of moisture for the succeeding grain crop.

Flood plain. Nearly level land, consisting of stream sediments, that borders a stream and is subject to flooding unless protected artificially.

Floodway. A natural or excavated channel generally bounded by dikes and levees and used to carry excessive water and to reduce flooding.

Gully. A miniature valley with steep sides cut by running water and through which water ordinarily runs only after rains. The distinction between gully and rill is one of depth. A gully generally is an obstacle to farm machinery and is too deep to be obliterated by normal tillage; a rill is of lesser depth and can be smoothed over by ordinary tillage. V-shaped gullies result if the material is more difficult to erode with depth; whereas U-shaped gullies result if the lower material is more easily eroded than that above it.

Horizon, soil. A layer of soil, approximately parallel to the surface, that has distinct characteristics produced by soil-forming processes. These are the major horizons:

O horizon.—The layer of organic matter on the surface of a mineral soil. This layer consists of decaying plant residues.

A horizon.—The mineral horizon at the surface or just below an O horizon. This horizon is the one in which living organisms are most active and therefore is marked by the accumulation of humus. The horizon may have lost one or more of soluble salts, clay, and sesquioxides (iron and aluminum oxides).

B horizon.—The mineral horizon below an A horizon. The B horizon is in part a layer of change from the overlying A to the underlying C horizon. The B horizon also has distinctive characteristics caused (1) by accumulation of clay, sesquioxides, humus, or some combination of these; (2) by prismatic or blocky structure; (3) by redder or stronger colors than the A horizon; or (4) by some combination of these. Combined A and B horizons are usually called the solum, or true soil. If a soil lacks a B horizon, the A horizon alone is the solum.

C horizon.—The weathered rock material immediately beneath the solum. In most soils this material is presumed to be like that from which the overlying horizons were formed. If the material is known to be different from that in the solum, a Roman numeral precedes the letter C.

Irrigation. Application of water to soils to assist in production of crops. Methods of irrigation are—

Border.—Water is applied at the upper end of a strip in which the lateral flow of water is controlled by small earth ridges called border dikes, or borders.

Basin.—Water is applied rapidly to relatively level plots surrounded by levees or dikes.

Controlled flooding.—Water is released at intervals from closely spaced field ditches and distributed uniformly over the field.

Corrugation.—Water is applied to small, closely spaced furrows or ditches in fields of close-growing crops, or in orchards, to confine the flow of water to one direction.

Furrow—Water is applied in small ditches made by cultivation implements used for tree and row crops.

Sprinkler.—Water is sprayed over the soil surface through pipes or nozzles from a pressure system.

Subirrigation.—Water is applied in open ditches or tile lines until the water table is raised enough to wet the soil.

Wild flooding.—Irrigation water, released at high points, flows onto the field without controlled distribution.

Loess. Fine-grained material, dominantly of silt-sized particles, that has been deposited by wind.

***Low strength.** Inadequate strength for supporting loads.

Marsh. Periodically wet or continually flooded areas. Surface not deeply submerged. Covered dominantly with sedges, cattails, rushes, or other water-tolerant plants. Includes freshwater and salt-water marshes.

Mottling, soil. Irregularly marked with spots of different colors that vary in number and size. Mottling in soils usually indicates poor aeration and lack of drainage. Descriptive terms are as follows: abundance—*few, common,* and *many;* size —*fine, medium,* and *coarse;* and contrast —*faint, distinct,* and *prominent.* The size measurements are these: *fine,* less than 5 millimeters (about 0.2 inch) in diameter along the greatest dimension; *medium,* ranging from 5 millimeters to 15 millimeters (about 0.2 to 0.6 inch) in diameter along the greatest dimension; and *coarse,* more than 15 millimeters (about 0.6 inch) in diameter along the greatest dimension.

Organic matter. A general term for plant and animal material, in or on the soil, in all stages of decomposition. Readily decomposed organic matter is often distinguished from the more stable forms that are past the stage of rapid decomposition.

Organic soil. A general term applied to a soil or to a soil horizon that consists primarily of organic matter, such as peat soils, muck soils, and peaty soil layers. In chemistry, organic refers to the compounds of carbon.

Parent material. Disintegrated and partly weathered rock from which soil has formed.

Ped. An individual natural soil aggregate, such as a crumb, a prism, or a block, in contrast to a clod.

***Percs slowly.** The slow movement of water through the soil. Slow percolation adversely affects the specified use.

***Piping.** Formation by moving water of subsurface tunnels or pipelike cavities.

Plowpan. A compacted layer formed in the soil immediately below the plowed layer.

Profile, soil. A vertical section of the soil through all its horizons and extending into the parent material.

Range site. An area of range where climate, soil, and relief are sufficiently uniform to produce a distinct kind of climax vegetation.

Reaction, soil. The degree of acidity or alkalinity of a soil, expressed in pH value. A soil that tests to pH 7.0 is precisely neutral in reaction because it is neither acid nor alkaline. An acid, or "sour," soil is one that gives an acid reaction. In words, the degrees of acidity or alkalinity are expressed thus:

	pH		*pH*
Extremely acid	Below 4.5	Neutral	6.6 to 7.3
Very strongly acid	4.5 to 5.0	Mildly alkaline	7.4 to 7.8
Strongly acid	5.1 to 5.5	Moderately alkaline	7.9 to 8.4
Medium acid	5.6 to 6.0	Strongly alkaline	8.5 to 9.0
Slightly acid	6.1 to 6.5	Very strongly alkaline	9.1 and higher

Relief. The elevations or inequalities of a land surface, considered collectively.

***Seepage.** The rapid movement of water through the soil. Seepage adversely affects the specified use.

***Shrink swell.** The shrinking of soil when dry and the swelling when wet. Shrinking and swelling can damage roads, dams, building foundation, and other structures. It can also damage plant roots.

Sand. Individual rock or mineral fragments in a soil that range in diameter from 0.05 to 2.0 millimeters. Most sand grains consist of quartz, but they may be of any mineral composition. The textural class name of any soil that contains 85 percent or more sand and not more than 10 percent clay.

Silt. Individual mineral particles in a soil that range in diameter from the upper limit of clay (0.002 millimeter) to the lower limit of very fine sand (0.05 millimeter). Soil of the silt textural class is 80 percent or more silt and less than 12 percent clay.

Slickensides. Polished and grooved surfaces produced by one mass sliding past another. In soils, slickensides may occur at the bases of slip surfaces on relatively steep slopes and in swelling clays, where there is marked change in moisture content.

Soil. A natural, three-dimensional body on the earth's surface that supports plants and that has properties resulting from the integrated effect of climate and living matter acting on earthy parent material, as conditioned by relief over periods of time.

Structure, soil. The arrangement of primary soil particles into compound particles or clusters that are separated from adjoining aggregates and have properties unlike those of an equal mass of unaggregated primary soil particles. The principal forms of soil structure are—*platy* (laminated), *prismatic* (vertical axis of aggregates longer than horizontal), *columnar* (prisms with rounded tops), *blocky* (angular or subangular), and *granular. Structureless* soils are either *single grained* (each grain by itself, as in dune sand) or *massive* (the particles) adhering together without any regular cleavage, as in many claypans and hardpans).

Subsoil. Technically, the B horizon; roughly, the part of the solum below plow depth.

Subsoiling. Tillage of a soil below normal depth ordinarily to shatter a hardpan or claypan.

Surface soil. The soil ordinarily moved in tillage, or its equivalent in uncultivated soil, about 5 to 8 inches in thickness. The plowed layer.

Swamp. Any area, such as a marsh or bog, where the soil is saturated with water much of the year; during most of the year, however, the surface of the soil is not deeply submerged.

Terrace. An embankment, or ridge, constructed across sloping soils on the contour or at a slight angle to the contour. The terrace intercepts surface runoff so that it may soak into the soil or flow slowly to a prepared outlet without harm. Terraces in fields are generally built so they can be farmed. Terraces intended mainly for drainage have a deep channel that is maintained in permanent sod.

Terrace (geological). An old alluvial plain, ordinarily flat or undulating, bordering a river, lake, or the sea. Stream terraces are frequently called second bottoms, as contrasted to flood plains, and are seldom subject to overflow. Marine terraces were deposited by the sea and are generally wide.

Texture, soil. The relative proportions of sand, silt, and clay particles in a mass of soil. The basic textural classes, in order of increasing proportion of fine particles, are *sand, loamy said, sandy loam, loam, silt loam, silt, sandy clay loam, clay loam, silty clay loam, sandy clay, silty clay,* and *clay.* The sand, loamy sand, and sandy loam classes may be further divided by specifying "coarse," "fine," or "very fine."

***Unstable fill.** Risk of caving or sloughing in banks of fill material.

Upland (geology). Land consisting of material unworked by water in recent geologic time and lying, in general, at a higher elevation than the alluvial plain or stream terrace. Land above the lowlands along the rivers.

Water table. The highest part of the soil or underlying rock material that is wholly saturated with water. In some places an upper, or perched, water table may be separated from a lower one by a dry zone.

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GUIDE TO MAPPING UNITS

[For a description of capability units, see pages 34 and 35. For information on woodland suitability groups, see table 3, pages 36 and 37]

Map symbol	Mapping unit	Described on page	Capability unit	Woodland suitability group
			Symbol	Symbol
Ag	Alligator clay	12	IIIw-2	2w6
At	Alligator soils, frequently flooded	12	VIIw-1	3w6
Ax	Alligator-Galvez complex	13	IIIw-4	---
	Alligator soil	--	------	2w6
	Galvez soil	--	------	2w5
AY	Andry association	14	VIIw-2	---
Ba	Baldwin silty clay loam	14	IIIw-3	2w6
Ca	Calhoun silt loam	15	IIIw-6	2w9
Co	Coteau silt loam	17	IIw-2	1w8
DE	Delcomb association	17	VIIIw-1	---
FA	Fausse association	18	VIIw-1	3w6
FC	Fausse-Convent association	19	VIIw-1	---
	Fausse soil	--	------	3w6
	Convent soil	--	------	1w5
FE	Fausse soils	19	VIIw-1	3w6
Fr	Frost silt loam	20	IIIw-6	2w9
Fs	Frost silt loam, overwash	20	IIIw-7	2w9
Ga	Gallion-Perry complex, gently undulating	21	IIIw-5	---
	Gallion soil	--	------	2o4
	Perry soil	--	------	2w6
Gv	Galvez silt loam	22	IIw-1	2w5
Ia	Iberia silty clay loam, frequently flooded	22	Vw-1	3w6
Ib	Iberia silty clay	23	IIIw-1	2w6
Ja	Jeanerette silt loam	23	IIw-3	2w5
Jn	Jeanerette-Coteau complex, 3 to 8 percent slopes	24	IIIe-1	---
	Jeanerette soil	--	------	2w5
	Coteau soil	--	------	1w8
LA	Lafitte association	25	VIIIw-1	---
Lo	Loreauville silt loam	26	IIw-3	1w5
MA	Maurepas association	26	VIIIw-1	---
Me	Memphis silt loam, 5 to 8 percent slopes	27	IIIe-1	1o7
MH	Memphis association, hilly	28	VIe-1	1o7
NC	Newellton-Convent association, frequently flooded	28	Vw-3	---
	Newellton soil	--	------	3w6
	Convent soil	--	------	1w5
Pa	Patoutville silt loam	29	IIw-2	1w8
PC	Placedo association	31	VIIw-2	---
SC	Scatlake association	31	VIIIw-1	---
Sh	Sharkey clay	32	IIIw-1	2w6
Sk	Sharkey clay, occasionally flooded	32	IVw-1	3w6

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