HOW TO USE THIS SOIL SURVEY

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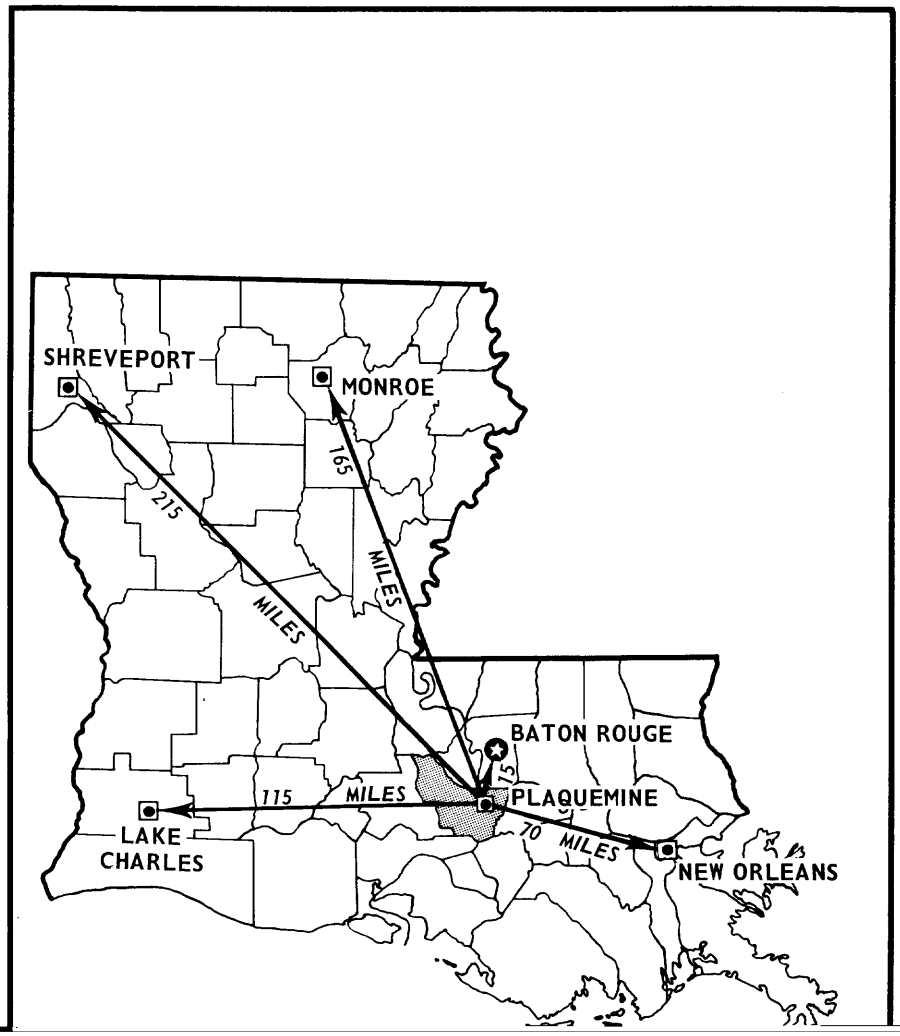
Foreword

The Soil Survey of Iberville Parish contains much information useful in any land-planning program. Of prime importance are the predictions of soil behavior for selected land uses. Also highlighted are limitations or hazards to land uses that are inherent in the soil, improvements needed to overcome these limitations, and the impact that selected land uses will have on the environment.

This soil survey has been prepared for many different users. Farmers, ranchers, foresters, and agronomists can use it to determine the potential of the soil and the management practices required for food and fiber production. Planners, community officials, engineers, developers, builders, and homebuyers can use it to plan land use, select sites for construction, develop soil resources, or identify any special practices that may be needed to insure proper performance. Conservationists, teachers, students, and specialists in recreation,


SHREVEPORT
MONROE
215
MILES
165
MILES
BATON ROUGE
75
115
MILES
PLAQUEMINE
LAKE
CHARLES
70
MILES
NEW ORLEANS

SOIL SURVEY OF IBERVILLE PARISH, LOUISIANA

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

IBERVILLE PARISH is in the western part of the southeastern portion of the State (see facing page). It is about 5 miles south of Baton Rouge. Elevations range from 25 feet above sea level on the Mississippi River natural levees in the eastern part of the parish to nearby sea level in the Atchafalaya Basin Floodway in the southwestern part of the parish. The total area of the

Agriculture

Iberville Parish is primarily an agricultural parish. The principal crop is sugarcane. Other crops, for example, cotton, corn, and rice, have been historically grown but have decreased significantly in acreage during the past 20 years. The acreage of soybeans has increased.

According to the U.S. Census of Agriculture for 1969

the sky is typically covered by low clouds driven by strong, gusty northerly winds, temperatures fall into the 40's, and intermittent drizzle is common. Within 24 hours, most 12 inches, and a daily rainfall of 5 inches or more occurs about once in 5 years. These rainfalls often occur along stationary fronts in winter and spring or in associa-

smaller than average winter surpluses of moisture during the late 40's, 50's, and 60's; large spring surpluses during the late 40's; and large summer deficits during much of the 40's. Data from figure 2 are reorganized in table 3 to show the probability of monthly deficits or surpluses that are equal to or greater than selected amounts. Random variation of deficits and surpluses over the decades was assumed.

Extremely severe weather conditions are associated with thunderstorms, squall lines, and hurricanes, but the frequency of serious damage at any one location within the parish is very low. Hail and tornadoes occur infrequently during severe thunderstorms. Tropical storms and hurricanes are likely to affect the parish in about 3 years in 10. Late summer and autumn storms usually

accessible waterfront in the northeastern part of the parish. The Morgan City Alternate Route of the Intracoastal Waterway runs in a north-south direction through the middle of the parish. These two waterways allow ships and barges to reach Baton Rouge, one of the world's largest inland ports. In addition to the Mississippi River and the Intracoastal Waterway-Port Allen-Morgan City Alternate Route, there are several natural waterways, which serve recreational, lumber, and fishing industries. A few of these natural waterways are Bayou Maringouin, Bayou Grosse Tete, Grand River, and Bayou Plaquemine.

Minerals

unit can occur in other soil units, but in a different pattern.

The map provides a broad perspective of the soils and landscapes in the survey area. It provides a basis for comparing the potential of large areas for general kinds of land use. Areas that are generally suitable for certain kinds of farming or other land uses can be identified on the map. Likewise, areas of soils having properties that

2. Sharkey Association

Level, poorly drained clayey soils

This soil association occurs throughout the eastern two thirds of the parish at the moderately low and intermediate elevations on the natural levees of the Mississippi River and its distributaries.

This association makes up about 24 percent of the

The Sharkey soils are slightly higher in elevation than the Fausse soils. Sharkey soils are poorly drained, and the

are four soil associations. About 30 percent of the parish is in this group.

pasture is poor because of wetness and flooding. Because of flooding, the potential for urban use is very poor.

7. Convent-Fausse Association

Gently undulating and level, somewhat poorly drained and very poorly drained, frequently flooded loamy and clayey soils

The Fausse soils are at slightly lower elevations than the Sharkey soils. Fausse soils are very poorly drained, and the Sharkey soils are poorly drained. The Fausse soils have a mucky clay or clay surface layer, and the Sharkey soils have a clay surface layer. Both kinds of soils have a high seasonal water table.

The minor soils in this association are the somewhat

water table and the almost continuous flooding over much [illegible] sion, steepness, salinity, wetness, or other characteristics

The Barbary soils make up about 70 percent of the association. Typically, the surface layer is overlain by a slightly acid, dark brown muck about 6 inches thick. The surface layer is a neutral, very dark gray, mucky semifluid clay about 6 inches thick. The next layer to a depth of 28 inches is a mildly alkaline, dark gray

Most of the acreage is in cropland. Sugarcane and soybeans are the main crops. A small acreage is in pasture, woodland, and homesites.

The potential for cropland and pasture is excellent. The nearly level slopes, high fertility, and loamy texture make this one of the choice soils for cropland in the parish

spring. The seasonal high water table fluctuates between depths of 1.5 and 2.5 feet during the months of December through April. Water stands in depressions and in low areas for short periods after heavy rains. Adequate

Most of the acreage is in cropland. Sugarcane and soybeans are the principal crops.

The potential for cropland and pasture is excellent. The high fertility, the nearly level slopes, and the loamy tex-

along the Whiskey Bayou Pilot Channel. Some small areas of Convent soils at lower elevations are frequently flooded. Separate areas of included soils generally are less than 50 acres in size.

Typically, the surface layer of the Convent soils is a neutral dark grayish brown silt loam about 4 inches thick. The next layer to a depth of 10 inches is a mildly alkaline grayish brown silt loam with dark brown mottles. The next layer to a depth of 40 inches is a mildly alkaline and

ments. A typical area of this mapping unit is about 65 percent Convent soils.

Minor soils make up about 35 percent of this mapping unit. This includes areas of Sharkey and Tunica soils in low depressions and swales and Commerce soils at intermediate positions.

Typically, the surface layer of the Convent soils is mildly alkaline, dark grayish brown silt loam about 3 inches thick. The next layer, extending to a depth of 10

mapping. Most mapped areas contain both soils, but the proportions of the Convent and the Fausse soils vary from place to place.

The composition of this unit is subject to change as floodwaters deposit new sediments. The present trend is for the proportion of Convent soils to increase and the proportion of the Fausse soils to decrease.

A typical area of this mapping unit is about 55 percent Convent soils and 25 percent Fausse soils. Minor soils make up 20 percent of the mapping unit. These include at higher elevations loamy soils that are similar to the Convent soils, but are coarser textured and contain reddish gray to brown layers up to 18 inches thick. Also included at lower elevations are soils similar to the Fausse soils that contain layers of reddish clay. Separate areas of included minor soils generally are less than 50 acres in size.

The Convent soils are at 10 to 25 foot elevations on natural levees of distributary channels and spoilbanks of manmade canals. They are in bands up to one-half mile in width and up to several miles in length.

Typically, Convent soils have a mildly alkaline dark

Most of the acreage is in woodland. The tree commonly growing on Convent soils is black willow (fig. 7). The trees commonly growing on the Fausse soils include baldcypress, black willow, green ash, honeylocust, and water tupelo. A complete list of plants observed on both soils is given in table 13. These soils are used for wildlife habitat and recreation. Some of the Convent soils at higher elevations are used for limited grazing of native plants. Some of the Fausse soils are used for commercial crawfishing. Also, a small acreage is in oil and gas fields.

The potential for cropland and pasture is very poor because of flooding and the permanent high water table of the Fausse soils. These soils provide good natural habitat for many wildlife species.

The potential for woodland is poor because of flooding, scouring, and deposition.

The potential for urban use is very poor. Flooding is a limitation for most uses. High shrink-swell potential and low strength of the Fausse soils are limitations for foundations and construction material. Capability subclass VIIw.

green ash, honey locust, pumpkin ash, sweetgum, water elm, water hickory, water locust, and water tupelo. A complete list of plants observed growing on these soils is given in table 13. These soils are used primarily for wildlife habitat and recreation. Some of the area is used for commercial crawfishing and a small acreage is in oil and gas fields.

The potential for cropland and pasture is very poor primarily because of flooding. The potential is limited for woodland because of flooding and wetness. These soils provide natural habitat and haven for many wildlife species.

The potential for urban use is very poor. Flooding and

periods, the water table fluctuates between the surface and 2 feet below the surface. These soils have a very high shrink-swell potential, but seldom dry out enough to crack. Adequate moisture is available to plants in most years.

Most of the acreage is in woodland. Trees commonly growing on the Fausse soils include baldcypress, black willow, green ash, honey locust, pumpkin ash, sweetgum, water elm, water hickory, water locust, and water tupelo. A list of native plants observed growing on these soils is given in table 13. These soils are used mostly for wildlife habitat, commercial crawfishing, and recreation. A small acreage is in oil and gas fields.

clude grain sorghum, rice, sugarcane, and soybeans. Suitable pasture plants are common bermudagrass, dallisgrass, johnsongrass, Pensacola bahiagrass, ryegrass, tall fescue, southern wild winter peas, and white clover.

This soil is somewhat sticky when wet, hard when dry, and somewhat difficult to keep in good tilth. It can be worked within only a somewhat narrow range of moisture content and is subject to becoming cloddy when worked. Wetness may delay planting and harvesting crops. A drainage system is needed for cropland and pasture. Land grading or smoothing will improve surface drainage and increase the efficiency of farm equipment. Proper management of crop residues will help maintain organic content, improve tilth, and reduce soil losses by erosion. Irrigation is needed for rice. Most crops other than legumes respond well to nitrogen fertilizer. Lime or other fertilizers generally are not needed.

The potential for urban use is poor. Wetness is a limitation for such uses as septic tank absorption fields, sanitary landfills, homesites, and local roads and streets. High

The potential for cropland and pasture is good. The level slopes and high fertility make this soil favorable for growing cultivated crops, but its wetness and clayey texture are less favorable features for this use.

Suitable crops are sugarcane, soybeans, grain sorghum, and rice. Suitable pasture plants are common bermudagrass, Pensacola bahiagrass, dallisgrass, ryegrass, tall fescue, small grains, and white clover.

This soil is sticky when wet, hard when dry, and difficult to keep in good tilth. It can be worked within only a narrow range of moisture content and is subject to becoming cloddy when worked. Wetness may delay planting and harvesting crops. A drainage system is needed for cropland and pasture. Land grading or smoothing will improve surface drainage and increase efficiency of farm equipment. Proper crop residue management will help maintain organic content, improve tilth, and reduce soil losses by erosion. Irrigation is needed for rice. Most crops other than legumes respond well to nitrogen fertilizer. Lime or other fertilizers generally are not needed.

and spring. The seasonally high water table fluctuates between a depth of 2 feet and the surface during the months of December through April. The soil in the swales dries out more slowly than the soil on the ridges. This soil has a very high shrink-swell potential. It cracks when dry and seals over when wet. Adequate moisture is available to plants in most years.

Most of the acreage is in pasture and woodland (fig. 9). The potential for cropland is poor, and the potential for pasture is fair. Wetness, irregular slope, and clayey texture make this one of the less desirable soils for cropland.

Suitable crops are grain sorghum, sugarcane, and soybeans. Suitable pasture plants include common bermu-

This soil is high in fertility. Water runs off the surface at a very slow rate. Water and air move very slowly through the soil. Wetness causes poor aeration and restricts root development of many plants. This soil is generally subject to flooding one or more times each year with up to 2 feet of water during the months of December through July. Unless the soil is flooded, the water table fluctuates between the surface and 2 feet below the surface. This soil has a very high shrink-swell potential. It cracks when dry and seals over when wet. Adequate moisture is available to plants in most years.

Most of the acreage is in woodland. Trees commonly growing on this soil are black willow, common persimmon

These soils are high in fertility. Water runs off the surface at a very slow rate. Water and air move very slowly through the soil. Wetness causes poor aeration and restricts root development of many plants. Unless the soils are flooded, the seasonally high water table fluctu-

The Sharkey soils are at the higher elevations on the natural levees of old distributary channels. They occur in bands ranging from several hundred feet to over one-half mile wide and typically are several miles long.

Typically, the Sharkey soils have a surface layer that is

The potential for urban use is very poor. Flooding and wetness are the main limitations. High shrink-swell potential and low strength are limitations for foundations and construction material. Capability subclass VIIw.

Tu—Tunica clay. This level soil is on the lower and intermediate parts of the natural levees of the Mississippi River and its distributaries. It formed in alluvium and is clayey in the upper layers and loamy in the lower layers. It occurs in tracts ranging from about 20 acres to 60 acres in size. Slope gradients are less than 1 percent.

Typically, the surface layer is neutral very dark grayish brown clay, about 7 inches thick, with dark yellowish brown mottles. The subsoil, extending to a depth of 25 inches, is neutral and mildly alkaline, dark gray clay with dark yellowish brown mottles. The underlying material is mildly alkaline, grayish brown silt loam with yellowish brown mottles.

Included with this soil in mapping are a few small areas

The potential for urban use is poor. Wetness is the principal limitation for such uses as septic tank absorption fields, sanitary landfills, homesites, and local roads and streets. High shrink-swell potential is a limitation for use as foundations or as construction material.

The good potential for woodland and certain kinds of wildlife habitat is overshadowed by the value for cropland and pasture. Capability subclass IIIw.

Va—Vacherie silt loam. This nearly level soil occurs on the intermediate parts of the natural levees of the Mississippi River and its distributaries. It formed in alluvium and is loamy in the upper layers and clayey in the lower subsoil. Slope gradients are less than 1 percent. This soil occurs in tracts ranging from 20 to 200 acres in size.

Typically, the surface layer is mildly alkaline dark gray and dark grayish brown silt loam, about 14 inches thick, with dark brown mottles. The subsoil to a depth of 21

tilth and reduce soil losses by erosion. Most crops soil survey. The safe disposal of wastes, for example, is

be grown, (2) past cropping history, (3) level of yield desired, and (4) soil phase. Specific recommendations should be based on laboratory analysis.

A soil sample for laboratory testing should consist of a single soil type and should represent no more than 10 acres. Agricultural agencies in the parish can supply detailed information and instruction regarding taking soil samples.

The soils in Iberville Parish range in reaction from medium acid to moderately alkaline in the upper 20 inches. They generally do not require lime.

ORGANIC MATTER CONTENT. Organic matter is important as a source of nitrogen for crop growth and is

only by constructing a ring levee system and using pumps to remove excess water.

WATER FOR PLANT GROWTH. In Iberville Parish, water is commonly available at the critical time for optimum plant growth without irrigation. Large amounts of rainfall occur in the summer months with a distribution pattern that favors the growth of sugarcane. This rainfall pattern precludes economical production of certain crops such as cotton, which is better suited to a drier climate. The available water holding capacity of the cropland soils is high to very high.

CROPPING SYSTEM. A desirable combination of crops in a good cropping system includes a legume for

The estimated yields were based mainly on the experience and records of farmers, conservationists, and extension agents. Results of field trials and demonstrations and available yield data from nearby parishes were also considered.

The yields were estimated assuming that the latest soil and crop management practices were used. Pasture yields were estimated for the most productive varieties of

CAPABILITY CLASSES, the broadest groups, are designated by Roman numerals I through VIII. The numerals indicate progressively greater limitations and narrower choices for practical use; they are defined as follows:

Class I soils have few limitations that restrict their use.

Class II soils have moderate limitations that reduce the

Some good stands of commercial trees are produced in the woodlands of the parish. The potential value of the wood products is substantial, but under present conditions, much of the area is far below its potential. Other values include wildlife, recreation, natural beauty, and conservation of soil and water. Also, some of these forested areas are used for commercial crawfishing.

The *potential productivity* of merchantable or *important trees* on a soil is expressed as a *site index*. This index is the average height, in feet, that dominant and codominant trees of a given species attain in a specified number of years. The site index applies to fully stocked, even-aged, unmanaged stands. Important trees are those that woodland managers generally favor in intermediate or im-

and geology; (6) find sources of gravel, sand, clay, and topsoil; (7) plan farm drainage systems, irrigation systems, ponds, terraces, and other structures for soil and water conservation; (8) relate performance of structures already built to the properties of the kinds of soil on which they are built so that performance of similar structures on the same or a similar soil in other locations can be predicted; and (9) predict the trafficability of soils for cross-country movement of vehicles and construction equipment.

Data presented in this section are useful for land-use planning and for choosing alternative practices or general designs that will overcome unfavorable soil properties and minimize soil-related failures. Limitations to

table, the texture and consistence of soils; the tendency of soils to cave in or slough; and the presence of very firm, dense soil layers. In addition, excavations are affected by the probability of flooding. Ratings do not apply to soil horizons below a depth of 6 feet unless otherwise noted.

In the soil series descriptions, the consistence of each soil horizon is defined, and the presence of very firm or extremely firm horizons, usually difficult to excavate, is indicated.

Dwellings and *small commercial buildings* referred to in table 8 are built on undisturbed soil and have foundation loads of a dwelling no more than three stories high. Separate ratings are made for small commercial buildings without basements and for dwellings with and without

limitations are minor and easily overcome; if *moderate*, soil properties or site features are unfavorable for the specified use, but limitations can be overcome by special planning and design; and if *severe*, soil properties or site features are so unfavorable or difficult to overcome that major soil reclamation, special designs, or intensive maintenance is required.

Septic tank absorption fields are subsurface systems of tile or perforated pipe that distribute effluent from a septic tank into the natural soil. Only the soil horizons between depths of 18 and 72 inches are evaluated for this use. The soil properties and site features considered are those that affect the absorption of the effluent and those that affect the construction of the system.

Properties and features that affect [illegible]

must be deep to bedrock and free of large stones and boulders. Where the seasonal water table is high, water seeps into trenches and causes problems in filling.

Unless otherwise stated, the limitations in table 9 apply only to the soil material within a depth of about 6 feet. If the trench is deeper, a limitation of slight or moderate may not be valid. Site investigation is needed before a site is selected.

Daily cover for landfill should be soil that is easy to excavate and spread over the compacted fill in wet and dry weather. Soils that are loamy or silty and free of stones or boulders are better than other soils. Clayey soils may be sticky and difficult to spread; sandy soils may be subject to soil blowing.

drained. Soils rated *fair* have a plasticity index of less and compaction characteristics. Large stones and organic

The elements of wildlife habitat are briefly described in the following paragraphs.

Grain and seed crops are seed-producing annuals used by wildlife. Examples are corn, grain sorghum, wheat, oats, millet, cowpeas, soybeans, and sunflowers. The major soil properties that affect the growth of grain and seed crops are depth of the root zone, texture of the sur-

Openland habitat consists of cropland, pasture, meadows, and areas that are overgrown with grasses, herbs, shrubs, and vines. These areas produce grain and seed crops, grasses and legumes, and wild herbaceous plants. The kinds of wildlife attracted to these areas include bobwhite quail, dove, robin, meadowlark, field sparrow, killdeer, cottontail rabbit, and red fox.

Risk of corrosion pertains to potential soil-induced chemical action that dissolves or weakens uncoated steel or concrete. The rate of corrosion of uncoated steel is related to soil moisture, particle-size distribution, total acidity, and electrical conductivity of the soil material. The rate of corrosion of concrete is based mainly on the sulfate content, texture, and acidity of the soil. Protective measures for steel or more resistant concrete help to avoid or minimize damage resulting from the corrosion. Uncoated steel intersecting soil boundaries or soil horizons is more susceptible to corrosion than an installation that is entirely within one kind of soil or within one soil horizon.

Soil Series and Morphology

In this section, each soil series recognized in the survey area is described in detail. The descriptions are arranged in alphabetic order by series name.

Characteristics of the soil and the material in which it formed are discussed for each series. The soil is then compared to similar soils and to nearby soils of other series. Then a pedon, a small three-dimensional area of soil typical of the soil series in the survey area, is described. The detailed descriptions of each soil horizon follow stan-

C3g—52 to 60 inches, dark gray (5Y 4/1) semifluid clay; massive; slightly sticky, flows with moderate difficulty between fingers when squeezed; moderately alkaline.

Depth to firm layers is commonly greater than 60 inches. Woody fragments, buried logs, and stumps are typical in the C horizon. Reaction ranges from slightly acid to mildly alkaline in the O2 and A horizons and is mildly alkaline or moderately alkaline in the C horizon.

The O2 horizon is very dark gray, dark gray, dark brown, very dark grayish brown, or black muck or peat. The A horizon is very dark gray, dark gray, or dark grayish brown. It is clay or mucky clay. The C horizon is gray, dark gray, dark greenish gray, or greenish gray semifluid clay.

Barbary soils are associated with Fausse and Sharkey soils. Barbary soils do not develop cracks as do Sharkey soils. They lack the firm B and C horizons typical of the Fausse and Sharkey soils.

Commerce Series

The Commerce series consists of somewhat poorly drained, moderately slowly permeable soils on the high and intermediate parts of the natural levees of the Mississippi River and its distributaries. They formed in loamy alluvium. Slopes are less than 1 percent. Typically, these soils occur at elevations 15 feet or more above sea level, but elevations range to below 10 feet in the southern part of the parish.

Typical pedon of Commerce silt loam 4 miles southeast

Vacherie soils. They have less clay in the upper horizons than the Tunica soils.

Convent Series

The Convent series consists of somewhat poorly drained, moderately permeable soils mostly on the highest

B2g—10 to 30 inches, gray (10YR 5/1) clay; common medium distinct dark brown (7.5YR 4/4) mottles; weak medium subangular blocky structure; sticky; mildly alkaline; clear smooth boundary.

C1g—30 to 44 inches, gray (5Y 5/1) clay; many medium distinct reddish brown (5YR 4/4) mottles; massive; sticky; moderately alkaline; clear smooth boundary.

C2g—44 to 52 inches, gray (N 5/0) clay; common medium distinct reddish brown (5YR 4/4) mottles; massive; firm, sticky; moderately al-

Sharkey soils are associated with Barbary, Convent, Commerce, Fausse, Tunica, and Vacherie soils. Sharkey soils are more poorly drained and have a higher clay content than the Convent and Commerce soils. They differ from the Fausse and Barbary soils in having better drainage and in forming cracks to a depth of 20 inches or more in most

ismar Plant, east central part of Spanish Land Grant section 70, T. 9 S., R. 1 E.:

Ap1—0 to 7 inches, dark gray (10YR 4/1) silt loam; moderate fine sub-

tributed to the formation of the soils in Iberville Parish are discussed in the following paragraphs.

Organic matter has accumulated, undergone partial decomposition, and been incorporated in all the soils. Organic matter production in soils is greatest in and above the surface soil horizons. This results in the formation of soils with surface horizons that are darker than the deeper horizons. Exceptions are in those soils with dark surface horizons of an older soil that is buried by more recent alluvium.

The decomposition, incorporation, and mixing of organic residues into the soil horizons are accomplished largely by the activity of living organisms. Many of the more stable products of decomposition remain as finely divided materials that contribute to granulation and serve as a source of plant nutrients in the soil. In the Barbary soils, the rate of accumulation of organic matter on the surface has exceeded the rate at which other processes result in its decomposition and incorporation into the soil. This results in a layer of largely organic material 2 to 8 inches thick on the surface of the mineral soil.

Intermittent addition of alluvial sediments at the surface has been of major importance in formation of the soils. Added sediments provide new parent material in which processes of soil formation must then occur. In many areas, accumulation of new materials has occurred at a faster rate than processes of soil formation could appreciably alter them. The evident depositional strata in soils, such as Convent, are a result of accumulations of this sort. Accumulations of sediments with widely contrasting texture are evident in the Tunica and Vacherie soils.

Processes resulting in development of soil structure have occurred in all the soils except Barbary. Plant roots and other organisms result in rearrangement of soil material into secondary aggregates. Decomposition products or organic residues and secretions of organisms serve as cementing agents that help stabilize structural aggregates. Alternate wetting and drying and shrinking and swelling result in the development of structural aggregates and are particularly effective in soils with appreciable amounts of clay, such as Sharkey.

Losses of components from the soils during soil formation have been minor. Water moving through the soil has, to some extent, removed soluble bases and any free carbonates initially present in upper horizons. This is indicated by soil reactions that are more alkaline in lower horizons than in surface horizons and by the absence of free carbonates in surface horizons of soils that are calcareous in lower horizons. Appreciable amounts of reduced iron and manganese may have been leached from soil horizons characterized by predominantly reducing conditions.

The poorly and very poorly drained soils in the survey area have horizons in which reduction and segregation of iron, and perhaps manganese, compounds has been an important process. Reducing conditions prevail in these poorly aerated horizons. Consequently, the soluble reduced forms of iron and manganese are predominant over the much less soluble oxidized forms. Reduced compounds of these elements result in the gray colors that are characteristic of the Ag, Bg, and Cg horizons in soils such as Barbary, Fausse, Sharkey, and Tunica. In the more soluble reduced forms, appreciable amounts of iron and manganese may be removed from the soils or translocated from one position to another within the soil by water. The presence of browner mottles in the predominantly gray horizons is indicative of the segregation and concentration of oxidized iron compounds as a result of alternating oxidizing and reducing conditions in the soils.

Secondary accumulations of calcium carbonate are present in horizons below a depth of about 30 inches in some of the soils. Carbonates dissolved from overlying horizons may have been translocated to these depths by water and redeposited. Other sources and processes may contribute in varying degrees to these carbonate accumulations. These include segregation of material within the horizon, upward translocation of materials in solution from deeper horizons during fluctuations of water table levels, and contributions of materials from readily weatherable minerals, such as plagioclase.

Factors of Soil Formation

A soil is a natural, three-dimensional body on the earth's surface that has properties resulting from the integrated effect of climate and living matter acting on parent material, as conditioned by relief over periods of time.

The interaction of five main factors influences the processes of soil formation and results in differences among the soils. These factors are the physical and chemical composition of the parent material; the climate during the formation of soil from the parent material; the kinds of plants and other organisms living in the soil; the relief of the land and its effect on runoff and soil moisture conditions; and the length of time it took the soil to form.

The effect of a factor can differ from place to place, but the interaction of all the factors determines the kind of soil that forms. Because of this interaction, it is recognized that many of the differences in soils cannot be attributed to differences in only one factor. For example, organic matter content in Iberville Parish soils is influenced by several factors, including relief, parent material, and living organisms. Such interactions do not preclude recognition of the manner in which a given factor may influence a specific soil property. In the following paragraphs the factors of soil formation are discussed as they relate to the soils in the survey area.

Parent Material

The parent material for mineral soils is the initial material from which the soils form. The soils mapped in Iberville Parish are mineral soils that formed in unconsolidated Mississippi River sediments of the natural levee and associated backswamp.

Sediments carried by the Mississippi River are of varied origin and may have originated anywhere in a drainage area that extends from western Montana to eastern Pennsylvania. Sorting of the sediments during deposition, together with a diverse mineralogy, results in marked differences in the parent materials of soils developed in the alluvium. Mineralogical studies (*1*) of the alluvium indicate that smectite minerals are predominant in the clay-sized fraction, with secondary amounts of micaceous clays. Associated with these are lesser amounts of kaolinite, chlorite-vermiculite intergrade, and quartz minerals. The sand and silt-size fractions are made up largely of quartz with a sizable component of feldspars and

materials, the soils in Iberville Parish developed under climatic conditions similar to those of the present (*9*).

The climate is relatively uniform throughout the parish and, as a result, local differences in the soils are not caused by differences in atmospheric climate. The warm average temperatures and large amounts of precipitation favor a rapid rate of weathering of readily weatherable minerals in the soils. The soils are only slightly weathered because they have been exposed to weathering agents for only short periods of time. Weathering and leaching have occurred to some extent in most of the soils. This is indicated by soil reactions that become more alkaline with depth and by the absence of free carbonates in the upper

The time of soil formation has been relatively short for the soils mapped in Iberville Parish. Saucier (*7*) indicates that the entire parish lies within the most recent Mississippi River Meander Belt and the associated backswamp or flood basins. He considers the age of deposits in the

and usually submerged, with a free water table that fluctuates from about 12 inches above the surface to a depth of 6 inches or less during all seasons. Differences in the organic matter content of the soils are related to the internal drainage of the soils and thus to relief. Organic

better drained and aerated soils as those of the Convent and Commerce series.

In the most poorly drained soils, anerobic organisms are predominant throughout most or all of the year. Anerobic organisms do not require oxygen from the air and decompose organic residues very slowly. Differences in decomposition by micro-organisms can result in large accumulations of organic matter in poorly drained soils, such as Barbary, while in better drained soils, such as Convent and Commerce, the accumulation is much less.

Classification

The system of soil classification currently used was adopted by the National Cooperative Soil Survey in 1965. Readers interested in further details about the system should refer to the latest literature available (*2*, *11*).

The system of classification has six categories. Beginning with the broadest, these categories are the order, suborder, great group, subgroup, family, and series. In this system the classification is based on the different soil properties that can be observed in the field or those that can be inferred either from other properties that are observable in the field or from the combined data of soil

the great groups but do not indicate transitions to any other known kind of soil. Each subgroup is identified by one or more adjectives preceding the name of the great group. The adjective *Typic* identifies for the subgroup that is thought to typify the great group. An example is Typic Fluvaquents.

FAMILY. Families are established within a subgroup on the basis of similar physical and chemical properties that affect management. Among the properties considered in horizons of major biological activity below plow depth are particle-size distribution, mineral content, temperature regime, thickness of the soil penetrable by roots, consistence, moisture equivalent, soil slope, and permanent cracks. A family name consists of the name of a subgroup and a series of adjectives. The adjectives are the class names for the soil properties used as family differentiae. An example is very fine montmorillonitic, nonacid, thermic, Typic Fluvaquents.

SERIES. The series consists of soils that formed in a particular kind of material and have horizons that, except for texture of the surface soil or of the underlying substratum, are similar in differentiating characteristics and in arrangement in the soil profile. Among these characteristics are color, texture, structure, reaction, con-

cial drainage or irrigation but may be caused by the sudden deepening of channels or the blocking of drainage outlets. Seven classes of natural soil drainage are recognized:

Excessively drained.—Water is removed from the soil very rapidly. Excessively drained soils are commonly very coarse textured, rocky, or shallow. Some are steep. All are free of the mottling related to wetness.

Somewhat excessively drained.—Water is removed from the soil rapidly. Many somewhat excessively drained soils are sandy and rapidly pervious. Some are shallow. Some are so steep that much of the water they receive is lost as runoff. All are free of the mottling

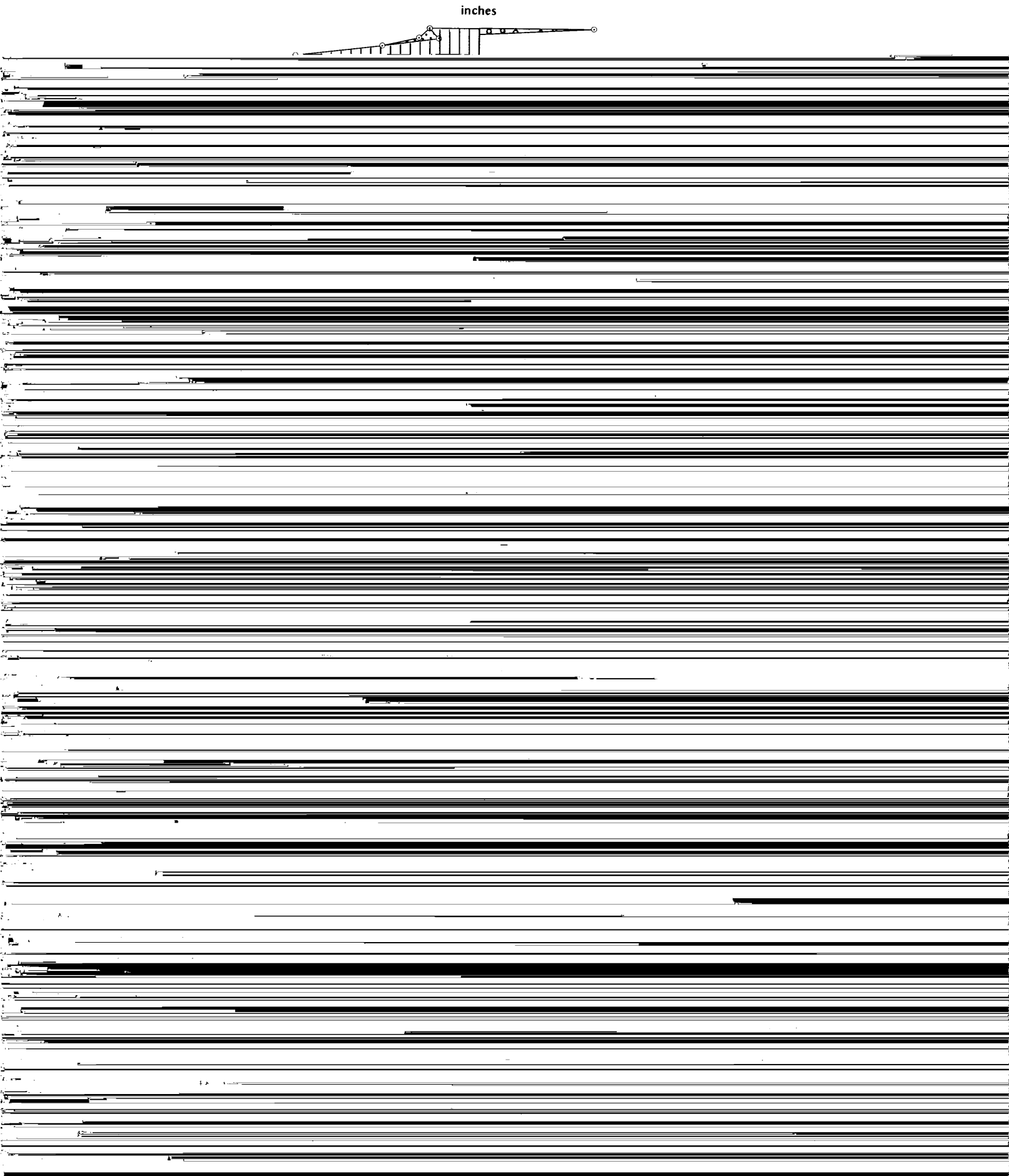
Ped. An individual natural soil aggregate, such as a granule, a prism, or a block.

Percs slowly. The slow movement of water through the soil adversely affecting the specified use.

Piping. Moving water of subsurface tunnels or pipelike cavities in the soil.

Plowpan. A compacted layer formed in the soil directly below the plowed layer.

Reaction, soil. The degree of acidity or alkalinity of a soil, expressed in pH values. A soil that tests to pH 7.0 is described as precisely neutral in reaction because it is neither acid nor alkaline. The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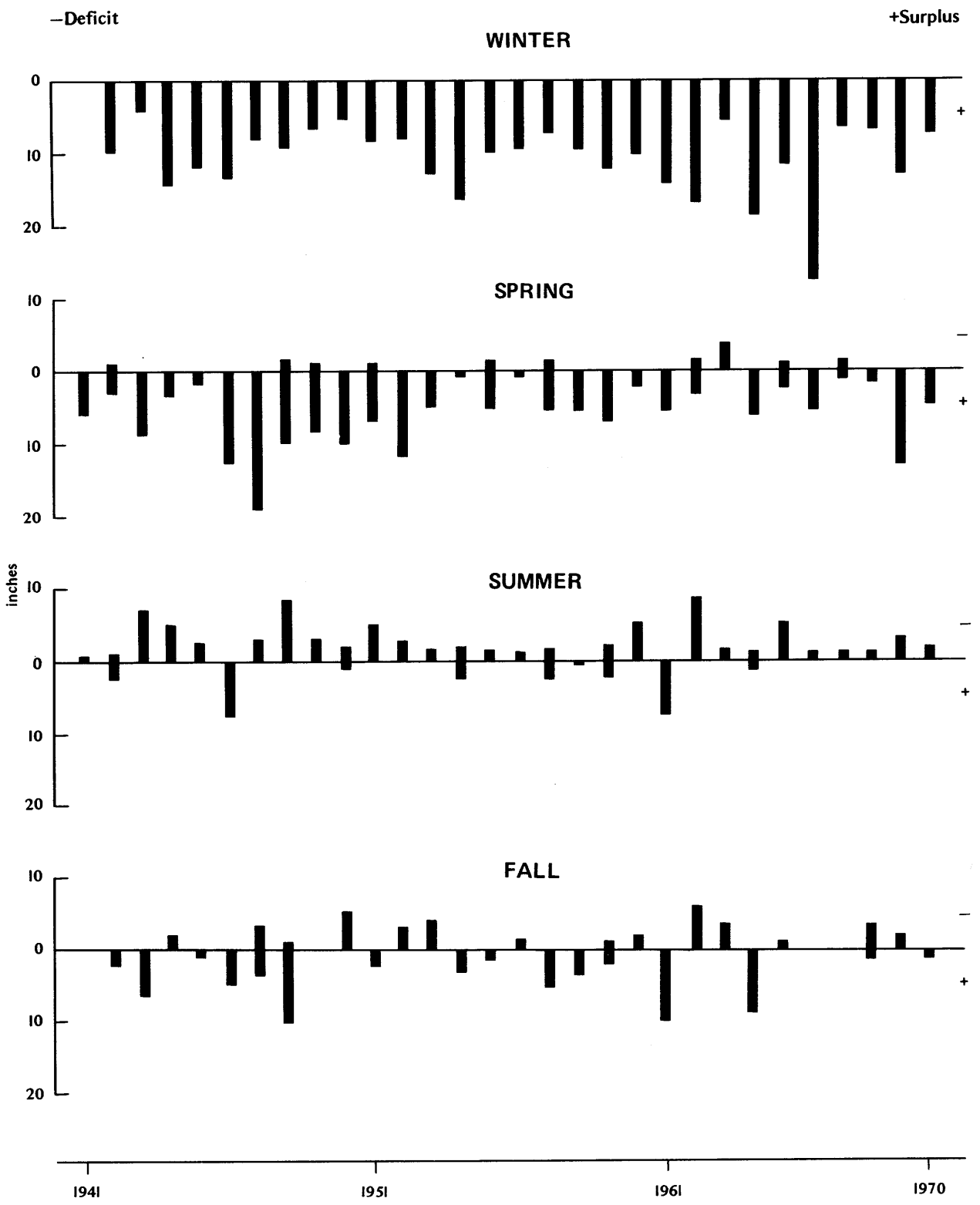

Figure 2.—Monthly water-budget surpluses and deficits at Lake Providence for the period 1941 through 1970.

Tables

TABLE 1.--TEMPERATURE AND PRECIPITATION DATA

Month	Temperature[1]					Precipitation[1]		
	Average daily maximum	Average daily minimum	Extreme average daily maximum and minimum	2 years in 10 will have-- Maximum temperature higher than--	2 years in 10 will have-- Minimum temperature lower than--	Average	1 year in 10 will have-- less than--	1 year in 10 will have-- more than--
	F	F	F	F	F	In	In	In
January-----	63	42	82/11	80	20	4.3	1.9	6.3
February----	66	44	84/13	81	25	5.0	2.6	7.4
March-------	71	49	90/24	84	30	5.0	2.1	8.6
April-------	79	58	91/36	89	40	4.4	1.5	7.4
May---------	86	64	96/43	94	49	4.9	2.2	7.1
June--------	90	70	100/55	96	58	4.7	1.6	8.2
July--------	91	72	100/58	98	66	6.5	3.0	10.1
August------	91	72	102/60	97	62	5.0	2.2	7.6
September---	88	68	97/45	95	53	5.2	1.6	9.5
October-----	82	58	93/34	91	39	2.7	0.6	6.2
November----	71	49	86/25	85	29	4.1	0.8	8.4
December----	65	44	82/13	80	23	5.3	3.0	7.5
Y-						57.2	48.8	69.8

TABLE 3.--WATER BUDGET DEFICITS AND SURPLUSES AT CARVILLE

[Recorded in the period 1941-70]

Month	Deficit						Surplus						
	Mean	Probability of deficit equal to or greater than--					Mean	Probability of surplus equal to or greater than--					
		.1 in	1 in	2 in	3 in	4 in		.1 in	2 in	4 in	6 in	8 in	10 in
	In	Pct	Pct	Pct	Pct	Pct	In	Pct	Pct	Pct	Pct	Pct	Pct
January	---	3	---	---	---	---	3.4	97	77	33	10	3	3
February	---	3	---	---	---	---	4.0	---	70	40	20	10	3
March	---	10	---	---	---	---	3.4	80	60	37	17	10	3
April	0.1	33	3	---	---	---	1.6	63	27	17	7	---	---
May	0.3	50	10	---	---	---	0.7	40	10	10	---	---	---
June	0.9	70	37	13	7	---	0.4	20	13	---	---	---	---
July	0.7	60	27	13	3	---	0.5	20	13	3	---	---	---
August	1.0	73	37	20	10	3	---	10	---	---	---	---	---
September	0.6	57	20	10	7	---	0.6	17	10	7	3	---	---
October	0.7	63	30	10	---	---	0.3	17	7	3	---	---	---
November	0.1	23	---	---	---	---	1.3	53	23	13	3	3	---
December	---	---	---	---	---	---	3.4	90	67	30	10	7	7
Year	4.4	---	---	---	---	---	19.7	---	---	---	---	---	---

TABLE 4.--POTENTIAL OF SOIL ASSOCIATIONS FOR CROPLAND, HARDWOOD WOODLAND, AND URBANLAND

[Soil associations with potential use rating and major soil factors ranked in order of choice within

TABLE 4.--POTENTIAL OF SOIL ASSOCIATIONS FOR CROPLAND, HARDWOOD WOODLAND, AND URBANLAND--Continued

Cropland	Hardwood woodland	Urbanland
Fausse-Sharkey association:	Fausse-Sharkey association:	Fausse-Sharkey association:
Very poor--subject to frequent deep flooding, permanent high water table in low areas within the Atchafalaya Basin Floodway.	Poor--low to medium productivity, severe equipment limitations, severe seedling mortality, frequent deep flooding within the Atchafalaya Basin Floodway.	Very poor--subject to frequent deep flooding, poor engineering characteristics within the Atchafalaya Basin Floodway.
Barbary association:	Barbary association:	Barbary association:
Very poor--permanent high water table, poor traffic supporting capacity, almost continuous flooding.	Poor--low productivity, permanent flooding, severe equipment limitations, severe seedling mortality.	Very poor--permanent high water table, almost continuous flooding, very poor engineering characteristics.

TABLE 5.--ACREAGE AND PROPORTIONATE EXTENT OF THE SOILS

Map symbol	Soil name	Acres	Percent
BA	Barbary association	4,906	1.2
Cc	Commerce silt loam	44,572	10.7
Ce	Commerce silty clay loam	28,384	6.8
Cn	Convent silt loam	7,673	1.8
CO	Convent soils, occasionally flooded	6,635	1.6
CS	Convent soils, frequently flooded	5,808	1.4
CV	Convent and Fausse soils	17,318	4.2
FA	Fausse association	22,804	5.5
FU	Fausse soils	62,346	15.0
Sa	Sharkey silty clay loam	9,750	2.3
Sc	Sharkey clay	72,645	17.5
Sh	Sharkey clay, gently undulating	2,587	0.6
Sk	Sharkey clay, frequently flooded	65,261	15.7
SS	Sharkey soils, occasionally flooded	15,300	3.7

TABLE 6.--YIELDS PER ACRE OF CROPS AND PASTURE

[Yields in columns N are for nonirrigated soils; those in column I are for irrigated soils. All yields were estimated for a high level of management in 1973. Absence of a yield figure indicates the crop is seldom grown or is not suited]

Soil name and map symbol	Sugarcane	Soybeans	Common bermudagrass	Improved bermudagrass	Rice	Corn
	N	N	N	N	I	N
	Ton	Bu	AUM[1]	AUM[1]	Bu	Bu
Barbary:						
[2]BA	---	---	---	---	---	---
Commerce:						
Cc	35	40	8.0	15.5	---	95
Ce	35	40	7.5	15.0	---	85
Convent:						
Cn	32	40	8.0	15.0	---	95
[2]CO	---	---	7.5	---	---	---
[2]CS	---	---	6.5	---	---	---
[2]CV	---	---	---	---	---	---
Fausse:						
[2]FA, [2]FU	---	---	---	---	---	---
Sharkey:						
Sa, Sc	30	40	6.5	---	130	---
Sh	---	30	6.5	---	---	---
Sk	---	---	5.0	---	---	---
[2]SS	---	30	6.0	---	---	---
[2]SY	---	---	---	---	---	---
Tunica:						
Tu	30	40	6.5	---	130	---
Vacherie:						
Va	33	40	8.0	15.0	---	85

[1]Animal-unit-month: The amount of forage or feed required to feed one animal unit (cow, horse, mule) for a period of 30 days.

[2]This mapping unit is made up of two or more dominant kinds of soil. See mapping unit description for the composition and behavior of the whole mapping unit.

TABLE 7.--WOODLAND MANAGEMENT AND PRODUCTIVITY

[Only the soils suitable for production of commercial trees are listed in this table. Absence of an entry in a column means the information was not available]

Soil name and map symbol	Ordination symbol	Management concerns			Potential productivity		Trees to plant
		Erosion hazard	Equipment limitation	Seedling mortality	Important trees	Site index	
Barbary:							
[1]BA	4w	Slight	Severe	Severe	Baldcypress	---	Baldcypress.
					Water tupelo	60	
					Black willow	---	
					Pumpkin ash	---	
					Green ash	---	
Commerce:							
Cc, Ce	1w	Slight	Moderate	Slight	Green ash	80	Eastern cottonwood, American sycamore.
					Eastern cottonwood	120	
					Nuttall oak	90	
					Water oak	110	
					Pecan	---	
					American sycamore	---	
Convent:							
Cn, [1]CO, [1]CS	1w	Slight	Moderate	Slight	Green ash	80	Eastern cottonwood, American sycamore.
					Eastern cottonwood	120	
					Sweetgum	110	
					American sycamore	---	

TABLE 7.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Soil name and map symbol	Ordination symbol	Management concerns			Potential productivity		Trees to plant
		Erosion hazard	Equipment limitation	Seedling mortality	Important trees	Site index	
Tunica:							
Tu	2w	Slight	Severe	Moderate	Cherrybark oak	90	Eastern cottonwood, American sycamore.
					Eastern cottonwood	100	
					Green ash	100	
					Nuttall oak	105	
					Sweetgum	90	
Vacherie:							
Va	1w	Slight	Moderate	Slight	Green ash	---	Eastern cottonwood, American sycamore.
					Eastern cottonwood	120	
					Sweetgum	110	
					American sycamore	---	

[1]This mapping unit is made up of two or more dominant kinds of soil. See mapping unit description for the

TABLE 8.--BUILDING SITE DEVELOPMENT

["Shrink-swell" and some of the other terms that describe restrictive soil features are defined in the Glossary. See text for definitions of "slight," "moderate," and "severe." Absence of an entry means soil was not rated]

Soil name and map symbol	Shallow excavations	Dwellings without basements	Small commercial buildings	Local roads and streets
Barbary:				
[1]BA	Severe: floods, wetness, too clayey.	Severe: floods.	Severe: floods, shrink-swell, low strength.	Severe: floods, shrink-swell, low strength.
Commerce:				
Cc, Ce	Severe: wetness.	Moderate: wetness, low strength, shrink-swell.	Moderate: wetness, low strength, shrink-swell.	Moderate: wetness, low strength, shrink-swell.
Convent:				
Cn	Severe: wetness, cutbanks cave.	Moderate: low strength, wetness.	Moderate: low strength, wetness.	Moderate: low strength, wetness.
[1]CO, [1]CS	Severe: floods, wetness.	Severe: floods.	Severe: floods.	Severe: floods.
[1]CV:				
Convent part	Severe: floods, wetness.	Severe: floods.	Severe: floods.	Severe: floods.
Fausse part	Severe: floods, too clayey, wetness.	Severe: floods.	Severe: floods, wetness, shrink-swell.	Severe: floods, wetness, shrink-swell.
Fausse:				
[1]FA, [1]FU	Severe: floods, too clayey, wetness.	Severe: floods.	Severe: floods, wetness, shrink-swell.	Severe: floods, wetness, shrink-swell.
Sharkey:				
Sa, Sc, Sh	Severe: wetness, too clayey.	Severe: wetness, low strength, shrink-swell.	Severe: wetness, low strength, shrink-swell.	Severe: wetness, low strength, shrink-swell.
Sk, [1]SS	Severe: floods, wetness, too clayey.	Severe: floods.	Severe: floods, wetness, shrink-swell.	Severe: floods, wetness, shrink-swell.
[1]SY:				
Sharkey part	Severe: floods, wetness, too clayey.	Severe: floods.	Severe: floods, wetness, shrink-swell.	Severe: floods, wetness, shrink-swell.
Fausse part	Severe: floods, too clayey, wetness	Severe: floods.	Severe: floods, wetness, shrink-swell	Severe: floods, wetness, shrink-swell

TABLE 8.--BUILDING SITE DEVELOPMENT--Continued

Soil name and map symbol	Shallow excavations	Dwellings without basements	Small commercial buildings	Local roads and streets
Vacherie: Va	Severe: wetness, too clayey.	Moderate: wetness, shrink-swell, low strength.	Moderate: wetness, shrink-swell, low strength.	Severe: shrink-swell, low strength.

[1]This mapping unit is made up of two or more dominant kinds of soil. See mapping unit description for the composition and behavior of the whole mapping unit.

TABLE 9.--SANITARY FACILITIES

["Shrink-swell" and some of the other terms that describe restrictive soil features are defined in the Glossary. See text for definitions of "slight," "moderate," "severe," and other terms used to rate soils. Absence of an entry means soil was not rated]

Soil name and map symbol	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill

TABLE 10.--CONSTRUCTION MATERIALS

[redacted]

TABLE 11.--WATER MANAGEMENT

["Seepage" and some of the other terms that describe restrictive soil features are defined in the Glossary. See text for definitions of "slight," "moderate," and "severe." Absence of an entry means soil was not evaluated]

Soil name and map symbol	Limitations for--		Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Drainage	Irrigation	Grassed waterways
Barbary: [1]BA	Slight	Severe: low strength.	Floods, percs slowly.	Floods, percs slowly.	Not needed.

TABLE 11.--WATER MANAGEMENT--Continued

Soil name and map symbol	Limitations for--		Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Drainage	Irrigation	Grassed waterways
Sharkey: Fausse part-----	Slight----------	Moderate: shrink-swell, compressible, low strength.	Floods, percs slowly.	Floods, percs slowly, wetness.	Not needed.
Tunica: Tu----------	Moderate: seepage.	Moderate: shrink-swell, compressible.	Wetness, percs slowly.	Slow intake, floods, wetness.	Percs slowly, wetness.
Vacherie: Va----------	Slight----------	Moderate: low strength, shrink-swell, compressible.	Percs slowly-----	Percs slowly-----	Erodes easily.

[1]This mapping unit is made up of two or more dominant kinds of soil. See mapping unit description for the composition and behavior of the whole mapping unit.

TABLE 12.--RECREATIONAL DEVELOPMENT

["Shrink-swell" and some of the other terms that describe restrictive soil features are defined in the Glossary. See text for definitions of "slight," "moderate," and "severe"]

Soil name and map symbol	Camp areas	Picnic areas	Playgrounds	Paths and trails
Barbary:				
[1]BA	Severe: floods, wetness, percs slowly.	Severe: floods, wetness, percs slowly.	Severe: floods, wetness, percs slowly.	Severe: floods, wetness, percs slowly.
Commerce:				
Cc	Moderate: wetness, percs slowly.	Moderate: wetness.	Moderate: wetness.	Moderate: wetness.
Ce	Moderate: too clayey, percs slowly.	Moderate: wetness, too clayey.	Moderate: wetness, too clayey.	Moderate: wetness, too clayey.
Convent:				
Cn	Moderate: wetness.	Moderate: wetness.	Moderate: wetness.	Moderate: wetness.
[1]CO, [1]CS	Severe: floods.	Severe: floods.	Severe: floods.	Severe: floods.
[1]CV:				
Convent part	Severe: floods.	Severe: floods.	Severe: floods.	Severe: floods.
Fausse part	Severe: floods, wetness, too clayey.	Severe: floods, wetness, too clayey.	Severe: floods, wetness, too clayey.	Severe: floods, wetness, too clayey.
Fausse:				
[1]FA, [1]FU	Severe: floods, wetness, too clayey.	Severe: floods, wetness, too clayey.	Severe: floods, wetness, too clayey.	Severe: floods, wetness, too clayey.
Sharkey:				
Sa, Sc, Sh	Severe: too clayey, percs slowly, wetness.	Severe: too clayey, wetness.	Severe: too clayey, percs slowly, wetness.	Severe: too clayey, wetness.
Sk, [1]SS	Severe: floods, too clayey, percs slowly.	Severe: floods, too clayey, wetness.	Severe: floods, too clayey, percs slowly.	Severe: floods, too clayey, wetness.
[1]SY:				
Sharkey part	Severe: floods, too clayey, percs slowly.	Severe: floods, too clayey, wetness.	Severe: floods, too clayey, percs slowly.	Severe: floods, too clayey, wetness.
Fausse part	Severe: floods, wetness, too clayey.	Severe: floods, wetness, too clayey.	Severe: floods, wetness, too clayey.	Severe: floods, wetness, too clayey.
Tunica:				
Tu	Severe:	Severe:	Severe:	Severe:

TABLE 12.--RECREATIONAL DEVELOPMENT--Continued

Soil name and map symbol	Camp areas	Picnic areas	Playgrounds	Paths and trails
Vacherie: Va	Moderate: percs slowly, wetness.	Moderate: wetness.	Moderate: percs slowly, wetness.	Moderate: wetness.

[1]This mapping unit is made up of two or more dominant kinds of soil. See mapping unit description for the composition and behavior of the whole mapping unit.

TABLE 13.--NATIVE PLANTS ON SELECTED SOILS IN WETLANDS[1]

[Common--Observed growing throughout most of soil area. Uncommon--Observed growing only in a few places on soil area]

Soil	Grasses, sedges, and rushes	Forbs and forb-like plants	Vines	Shrubs and shrub-like plants	Trees
Barbary:					
BA	Common: None	Common: Duckweed, alligatorweed, Spanish moss, waterhyacinth.	Common: None	Common: Buttonbush	Common: Baldcypress, black willow, water tupelo.
	Uncommon: None	Uncommon: Butterweed	Uncommon: None	Uncommon: Marshmallow	Uncommon: Drummond red maple, green ash, honey locust, pumpkin ash, water locust.
Convent:					
CO	Common: Bushy bluestem, carex sedge.	Common: Mistflower, nettle, aster, blue verbena, butterweed, Carolina horsenettle, common cocklebur, curly dock, dog fennel, smartweed, Spanish moss, thistle, vetch.	Common: Grape, Japanese climbing fern, peppervine, climbing hempweed, poison ivy, rattan, trumpet-creeper, Virginia creeper.	Common: Marshmallow, American elderberry, blackberry, dewberry, southern waxmyrtle.	Common: Eastern cottonwood, American sycamore, black willow, boxelder, common persimmon, sugarberry, sweetberry, water oak.
	Uncommon: Fall panicum, horned beakrush, plumegrass.	Uncommon: Avens, beefsteak-plant, bugleweed, buttercup, fern, giant ragweed, goldenrod, lythrum, pennywort, purple pluchea, smallspike falsenettle, strawberry.	Uncommon: Buckwheatvine, Carolina snailseed, common greenbrier, morning glory, saw greenbrier.	Uncommon: Dwarf palmetto, eastern baccharis, lead plant, possumhaw.	Uncommon: American elm, baldcypress, Drummond red maple, green ash, laurel oak, live oak, Nuttall oak, overcup oak.
Convent and Fausse:					
CV:					
Convent part	Common: Carex sedge	Common: Butterweed, common cocklebur, purple pluchea, smartweed, Spanish moss.	Common: Poison ivy	Common: Marshmallow	Common: Black willow

See footnote at end of table.

Trees
mon: ican sycamore, cypress, ern cottonwood, n ash, rberry, tgum, r elm, r hickory, r locust, r tupelo.
n: cypress, k willow, n ash, y locust, kin ash, tgum, r elm, r hickory, r locust, r tupelo.
mon: on persimmon, mond red maple, all oak, rberry.
n: cypress, k willow, n ash, y locust, kin ash, tgum, r elm, r hickory, r locust, r tupelo.
mon: on persimmon, mond red maple, all oak, rberry.

ANTS ON SELECTED SOILS IN WETLANDS--Continued

nd forb- lants	Vines	Shrubs and shrub-like plants	Trees
weed, -plant, , , r, uchea.	Uncommon: Buckwheatvine, Carolina snailseed, Japanese climbing vine, morning glory, saw greenbrier.	Uncommon: Hawthorn, possumhaw, swampprivet.	Uncommon: American elm, American sycamore, baldcypress, eastern cottonwood, live oak, pumpkin ash, water hickory, water locust.
weed, l, oss, inth.	Common: None	Common: American snowbell, buttonbush, swampprivet.	Common: Baldcypress, black willow, green ash, honey locust, pumpkin ash, sweetgum, water elm, water hickory, water locust, water tupelo.
ed, ettle, ocklebur, gweed, ail, luchea.	Uncommon: Buckwheatvine, climbing hempweed, rattan, trumpet-creeper.	Uncommon: Blackberry, eastern baccharis, hawthorn, lead plant, marshmallow, poison ivy.	Uncommon: Common persimmon, Drummond red maple, Nuttall oak, sugarberry.
ena, ed, ettle, ocklebur, ock, gweed, d, t, ke ettle, d, moss,	Common: Peppervine, poison ivy, rattan, trumpet-creeper.	Common: Blackberry, dwarf palmetto, eastern baccharis, hawthorn, lead plant.	Common: Black willow, common persimmon, Drummond red maple, green ash, honey locust, overcup oak, sugarberry, sweetgum, water hickory, water locust, water oak.

TABLE 13.--NATIVE PLANTS ON SELECTED SOILS IN WETLANDS--Continued

s, sedges, rushes	Forbs and forb-like plants	Vines	Shrubs and shrub-like plants	Trees
estem, ge, akrush, s.	Common: Blue verbena, butterweed, Carolina horsenettle, common cocklebur, curley dock, giant ragweed, goldenrod, pennywort, smallspike falsenettle, smartweed, Spanish moss, thistle.	Common: Peppervine, poison ivy, rattan, trumpet-creeper.	Common: Blackberry, dwarf palmetto, eastern baccharis, hawthorn, lead plant.	Common: Blackwillow, common persimmon, Drummond red maple, green ash, honey locust, overcup oak, sugarberry, sweetgum, water hickory, water locust, water oak.
cum	Uncommon: Alligatorweed, Aster, beefsteak-plant, bugleweed, buttercup, dog fennel, fern, lizard tail, lythrum, mistflower, nettle, purple pluchea, vetch, waterhyacinth.	Uncommon: Buckwheatvine, Carolina snailseed, climbing hempweed, common greenbrier, grape, Japanese climbing fern, morning glory, saw greenbrier, Virginia creeper.	Uncommon: American elderberry, buttonbush, dewberry, marshmallow, possumhaw, swampprivet.	Uncommon: American elm, American sycamore, baldcypress, boxelder, eastern cottonwood, laurel oak, live oak, Nuttall oak, pumpkin ash, water elm, water tupelo.
estem, ge, akrush, s.	Common: Aster, blue verbena, butterweed, Carolina horsenettle, common cocklebur, curley dock, dog fennel, fern, giant ragweed, goldenrod, nettle, pennywort, smallspike falsenettle, smartweed, Spanish moss, strawberry, thistle, vetch.	Common: Climbing hempweed, common greenbrier, grape, peppervine, poison ivy, rattan, trumpet-creeper, Virginia creeper.	Common: American elderberry, blackberry, dewberry, dwarf palmetto, eastern baccharis, lead plant, marshmallow, southern waxmyrtle.	Common: Black willow, boxelder, common persimmon, Drummond red maple, green ash, honey locust, laurel oak, Nuttall oak, overcup oak, sugarberry, sweetgum, water oak.

s.

TABLE 13.--NATIVE PLANTS ON SELECTED SOILS IN WETLANDS--Continued

Soil	Grasses, sedges, and rushes	Forbs and forb-like plants	Vines	Shrubs and shrub-like plants	Trees
Sharkey part, cont.	Uncommon: Fall panicum	Uncommon: Alligatorweed, aster, beefsteak-plant, bugleweed, buttercup, dog fennel, fern, lizard tail, lythrum, mistflower, nettle, purple pluchea, vetch, waterhyacinth.	Uncommon: Buckwheatvine, Carolina snailseed, climbing hempweed, common greenbrier, grape, Japanese climbing fern, morning glory, saw greenbrier, Virginia creeper.	Uncommon: American elderberry, buttonbush, dewberry, marshmallow, possumhaw, swampprivet.	Uncommon: American elm, American sycamore, baldcypress, boxelder, eastern cottonwood, laurel oak, live oak, Nuttall oak, pumpkin ash, water elm, water tupelo.

[1]Data for this table was collected during late fall and winter. Some species not observed may be present during spring and summer.

TABLE 14.--WILDLIFE HABITAT POTENTIALS

[See text for definitions of "good," "fair," "poor," and "very poor." Absence of an entry indicates the soil was not rated]

Soil name and map symbol	Potential for habitat elements						Potential as habitat for--		
	Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Wetland plants	Shallow water areas	Openland wildlife	Woodland wildlife	Wetland wildlife

TABLE 15.--ENGINEERING PROPERTIES AND CLASSIFICATIONS

[The symbol < means less than; > means greater than. Absence of an entry means data were not estimated]

Soil name and map symbol	Depth	USDA texture	Classification		Percentage passing sieve number--				Liquid limit	Plasticity index
			Unified	AASHTO	4	10	40	200		
	In								Pct	
Barbary:										
[1]BA	6-0	Muck	PT	A-8	---	---	---	---	---	---
	0-6	Mucky clay, clay	OH	A-7-5, A-8	100	100	100	95-100	70-90	35-45
	6-60	Clay	MH	A-7-5	100	100	100	95-100	70-90	35-45
Commerce:										
Cc	0-11	Silt loam	CL-ML, CL, ML	A-4, A-6	100	100	100	85-100	<30	NP-10
	11-29	Silty clay loam, silt loam.	CL	A-6, A-7-6	100	100	100	80-100	25-45	11-23
	29-60	Very fine sandy loam, silty clay loam, silt loam.	CL-ML, CL, ML	A-4, A-6	100	100	100	75-100	<40	NP-20
Ce	0-9	Silty clay loam	CL	A-6, A-7-6	100	100	100	90-100	32-50	11-25
	9-28	Silty clay loam, silt loam.	CL	A-6, A-7-6	100	100	100	80-100	25-45	11-23
	28-60	Very fine sandy loam, silty clay loam, silt loam.	CL-ML, CL, ML	A-4, A-6	100	100	100	75-100	<40	NP-20
Convent:										
Cn, CS	0-10	Silt loam	ML, CL-ML	A-4	100	100	95-100	85-100	<27	NP-7
	10-40	Silt loam, very fine sandy loam.	ML, CL-ML	A-4	100	100	95-100	85-100	<27	NP-7
	40-60	Silt loam, loamy very fine sand, very fine sandy loam.	ML, CL-ML	A-4	100	100	95-100	65-100	<27	NP-7
CO	0-10	Silt loam, very fine sandy loam.	ML, CL-ML	A-4	100	100	95-100	85-100	<27	NP-7
	10-40	Silt loam, very fine sandy loam.	ML	A-4	100	100	95-100	75-95	<23	NP-3
	40-60	Silt loam, very fine sandy loam, loamy very fine sand, clay.	ML, CL-ML, CH	A-4, A-7-6	100	100	95-100	75-95	<85	NP-50
[1]CV:										
Convent part	0-8	Silt loam, very fine sandy loam.	ML, CL-ML	A-4	100	100	95-100	85-100	<27	NP-7
	8-40	Silt loam, very fine sandy loam.	ML, CL-ML	A-4	100	100	95-100	95-100	<27	NP-7
	40-60	Silt loam, very fine sandy loam, loamy very fine sand, clay.	ML, CH, CL-ML, MH	A-7-6, A-7-5	100	100	95-100	75-100	<100	NP-65
Fausse part	0-10	Clay, mucky clay.	CH, OH, MH	A-7-6, A-7-5	100	100	100	95-100	60-100	30-65

TABLE 15.--ENGINEERING PROPERTIES AND CLASSIFICATIONS--Continued

Soil name and map symbol	Depth	USDA texture	Classification		Percentage passing sieve number--				Liquid limit	Plasticity index
			Unified	AASHTO	4	10	40	200		
	In								Pct	
Sharkey:										
Sa	0-11	Silty clay loam	CL	A-6, A-7-6	100	100	100	95-100	32-50	11-25
	11-36	Clay	CH	A-7-6	100	100	100	95-100	56-85	30-50
	36-60	Clay, silty clay loam, silt loam.	CL-ML, CL, CH	A-4, A-6, A-7-6	100	100	100	95-100	25-85	5-50
Sc, Sh, Sk, SS	0-36	Clay	CH	A-7-6	100	100	100	95-100	56-85	30-50
	36-60	Clay, silty clay loam, silt loam.	CL-ML, CL, CH	A-4, A-6, A-7-6	100	100	100	95-100	25-85	5-50
[1]SY:										
Sharkey part	0-36	Clay	CH	A-7-6	100	100	100	95-100	56-85	30-50
	36-60	Clay, silty clay loam, silt loam.	CL-ML, CL, CH	A-4, A-6, A-7-6	100	100	100	95-100	25-85	5-50
Fausse part	0-5	Clay, mucky clay.	CH, OH, MH	A-7-6, A-7-5	100	100	100	95-100	60-100	30-65
	5-60	Clay	CH, MH	A-7-6, A-7-5	100	100	100	95-100	60-105	30-73
Tunica:										
Tu	0-25	Clay, silty clay	CH, MH	A-7-6	100	98-100	95-100	90-100	50-80	25-45
	25-60	Very fine sandy loam, silt loam, silty clay loam.	ML, CL-ML, CL	A-4, A-6	100	95-100	65-100	51-100	<40	NP-20
Vacherie:										
Va	0-21	Silt loam, very fine sandy loam	ML, CL-ML	A-4	100	100	95-100	65-100	<27	NP-7
	21-60	Clay, silty clay	CH	A-7-6	100	100	100	95-100	51-75	26-45

[1]This mapping unit is made up of two or more dominant kinds of soil. See mapping unit description for the composition and behavior of the whole mapping unit.

TABLE 16.--PHYSICAL AND CHEMICAL PROPERTIES OF SOILS

[The symbol < means less than; > means greater than. Absence of an entry means data were not available or were not estimated]

Soil name and map symbol	Depth	Permeability	Available water capacity	Soil reaction	Shrink-swell potential	Risk of corrosion	
						Uncoated steel	Concrete
	In	In/hr	In/in	pH			
Barbary:							
[1]BA	6-0	>2.0	>.20	6.1-7.8	Low	High	Moderate.
	0-6	<0.06	0.18-0.20	6.6-7.8	High	High	Moderate.
	6-60	<0.06	0.18-0.20	7.4-8.4	High	High	Moderate.
Commerce:							
Cc	0-11	0.2-0.6	0.20-0.22	5.6-7.8	Moderate	High	Low.
	11-29	0.2-0.6	0.20-0.22	6.1-8.4	Moderate	High	Low.
	29-60	0.2-2.0	0.20-0.23	6.6-8.4	Low	High	Low.

TABLE 17.--CLASSIFICATION OF THE SOILS

Soil name	Family or higher taxonomic class
Barbary	Very-fine, montmorillonitic, nonacid, thermic Typic Hydraquents
Commerce	Fine-silty, mixed, nonacid, thermic Aeric Fluvaquents
Convent	Coarse-silty, mixed, nonacid, thermic Aeric Fluvaquents
Fausse	Very-fine, montmorillonitic, nonacid, thermic Typic Fluvaquents
Sharkey	Very-fine, montmorillonitic, nonacid, thermic Vertic Haplaquepts
Tunica	Clayey over loamy, montmorillonitic, nonacid, thermic Vertic Haplaquepts
Vacherie	Coarse-silty over clayey, mixed, nonacid, thermic Aeric Fluvaquents

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