Lafayette County, Florida
Nontechnical Soil Descriptions

Nontechnical soil descriptions describe soil properties or management considerations specific to a soil map unit or group of map units. These descriptions are written in terminology that nontechnical users of soil survey information can understand and are used to create reports. By linking the description to the soil survey map units these reports can be generated by conservation planners and other NRCS employees for distribution to land users. These descriptions are available through both Toolkit and NASIS.

In this subsection nontechnical descriptions are available through four categories they are Agronomic, Ecological Community, Urban, and Water Quality. Separate map unit to description links are provided for each category.

AGRONOMIC

The following agronomic categories are available and linked through the Land Capability Unit (LCU) that is listed below.

Category

aSOI - Soil Characteristics
bSAC - Soil Agronomic Characteristics
cH2O - Seasonal High Water Table
dCUL - Cultivation Limitations
eERO - Erosion Control
fIRR - Irrigation Needs
hPAS - Pasture and Hayland
iWMG - Water Table Management

Map Symbol	Non hydric LCU	Hydric LCU	Drained LCU	Undrained LCU
2	4s7			
4	3s21			
5	3s21(Otela) 4s7(Penney)			
6	4w4(Oaky)	7w6(Rawhide)		
7	4w5	7w6		

Map Symbol	Non hydric LCU	Hydric LCU	Drained LCU	Undrained LCU
9	4w5(Sapelo)	7w6(Chaires)		
10		7w2		
11		7w2		
13		4w26		
14	4w5			
15		7w2		
16	3w8			
18		6w3 7w6(Clara)		
20				4w7
24		7w3		
26	3w7			
27	3e5(Albany) 3w9(Ridgewood)			
28		6w4(Clara) 7w5(Meadowbrook)		
29		7w5		
31		4w24		
32		7w6		
33		5w2(Tooles) 7w5		
34	3s7			
36	3w4			
37		7w3(Pantego) 6w3(Surrency)		
38		6w3		
39	2w1			
41		7w6		
42		4w24(Sapelo) 6w3		
43	2w4(Garcon) 3w7(Albany) 7w6(Meadowbrook)			
44	3w7	7w5(Meadowbrook)		
45		5w1(Wekiva) 7w5(Rawhide) 5w4(Tooles)		
46		5w1(Tooles) 7w5(Rawhide)		

Map Symbol	Non hydric LCU	Hydric LCU	Drained LCU	Undrained LCU
48	3s21(Otela) 3s2(Shadeville) 4s7(Penney)			
52	6s7			
53	6s3			
54	2w4(Garcon) 2w1(Eunola)			

Map Units without an LCU listed are either not suited to these uses or suitability is so variable that it must be determined on-site.

ECOLOGICAL COMMUNITY

The following categories are available below.

kRNG - Rangeland
lWLD - Wildlife Suitability
mWOD - Woodland Suitability

EC 4 (Longleaf Pine-Turkey Oak Hills) - Map Units: 2, 4, 5, 34, 48, 53

EC 5 (Mixed Hardwood and Pines) - Map Units: 26, 27, 39, 43, 44*, 54*

EC 7 (North Florida Flatwoods) - Map Units: 6*, 7*, 9*, 13, 14, 16, 20, 31, 33*, 36, 42*, 52, 54*

EC 12 (Wetlands Hardwood Hammock) - Map Units: 45*, 46

EC 17 (Cypress Swamp) - Map Unit: 15*

EC 21 (Swamp Hardwoods) - Map Units: 6*, 7*, 9*, 10, 11, 15*, 18, 24, 28, 29, 32, 33*, 37*, 38, 41, 42*, 44*, 45*

EC 25 (Freshwater Marsh and Ponds) – Map Unit 37*

*These Map Units occur in more than one type of Ecological Community.

Map Units without an Ecological Community listed are not suited to these uses or suitability is so variable that it must be determined on-site.

URBAN USES

The following additional nontechnical descriptions are available for urban interpretations:

oURB - Urban Use Statement
pSEP - Septic Tank Absorption Fields
qLRS - Local Roads and Streets

01 - Map Units 28, 29, 38, 39, 41, 43, 44, 45, 46, 54
02 - Map Units 18, 24, 32, 37
03 - Map Units 31, 42
04 - Map Unit 6
05 - Map Unit 33
06 - Map Units 7, 9, 13, 14, 16, 20, 26, 27, 36, 52
13 – Map Unit 48
14 – Map Units 4, 5, 34, 53
21 - Map Units 10, 11, 15

Map units without a link listed are either not suited to these uses or suitability is so variable that it must be determined on-site.

WATER QUALITY

The last group of nontechnical description in this subsection of this FOTG is that group dealing with water quality, specifically pesticide and nutrient management. The link between the statements and the map units is listed below.

sWQ - Water Quality Statement
tPES - Pesticide Management Statemtent
uNUT - Nutrient Management Statement

02 - Map Units – 2, 34, 39, 48

03 - Map Units – 5, 7, 9, 14, 16, 26, 27, 36, 43, 44, 52, 53, 54

04 - Map Units - 6, 10, 11, 13, 15, 18, 20, 24, 28, 29, 31, 32, 33, 37, 38, 41, 42, 45, 46

2w1 Map Unit 39, 54(Eunola part)

"aSOI","2w1","This map unit consists of nearly level moderately well drained soils on uplands. They have sandy or loamy surface layers less than 20 inches thick, and moderately permeable, loamy subsoil layers. These soils are prime farmland."

"bSAC","2w1","A well aerated root zone is slightly limited by a seasonal high water table in wet seasons. The soils have a moderate available water capacity in the root zone. Natural fertility is low and crops respond moderately well to fertilization. The internal drainage rate under natural conditions is slow and response to artificial drainage is moderate."

"cH2O","2w1","In normal years these soils have a seasonal high water table at a depth of between 18 and 36 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL","2w1","These soils have moderate limitations for growing cultivated crops. The variety of adapted cultivated crops is somewhat limited by occasional wetness. Crops such as corn and peanuts are adapted when they are properly managed. Crop rotations should include cover crops on the land at least half the time. Crop residue should be left on the soil. Maximum yields require good seedbed preparation and nutrient management."

"eERO","2w1","Crops produced on these soils do not normally need special erosion control practices."

"fIRR","2w1","Crops produced on these soils are not normally irrigated."

"hPAS","2w1","These soils are well suited to pastures and hay crops. Improved pasture plants such as clovers, hybrid bermudagrass, and improved bahiagrass are well adapted. They grow well when they are well-managed. They require nutrient management and controlled grazing to maintain vigorous plants for highest yields."

"iWMG","2w1","Ditches and/or tile drains, to remove excess surface water during rains, are needed to prevent crop damage for most crops. Some crops such as tobacco require more intensive water control measures. Tile drains can also be used to supply water to plants during periods of low rainfall by subirrigation."

2w4 Map Units 43, 54(Garcon parts)

"aSOI","2w4","This map unit consists of nearly level, moderately well drained and somewhat poorly drained soils on uplands. They have sandy surface and subsurface layers 20 to 40 inches thick and moderately permeable loamy subsoil layers."

"bSAC","2w4","A well aerated root zone is limited by a seasonal high water table in wet seasons. The available water capacity averages moderate in the root zone. Natural fertility is low, but the soils respond well to fertilization. Internal drainage rate is moderate, and the soils respond well to water table management. Water table management is needed for highest yields of some crops."

"cH2O","2w4","In normal years these soils have a seasonal high water table at a depth of between 18 and 36 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL","2w4","These soils have moderate limitations for cultivated crops due to wetness. In their natural condition the variety of adapted crops is limited to those such as corn and peanuts that are tolerant of slight wetness. Crop rotations should include close growing crops, on the land at least half the time. All crop residues should be left on the land. Best yields require good seedbed preparation and nutrient management."

"eERO","2w4","Crops produced on these soils do not normally need special erosion control practices."

"fIRR","2w4","Crops produced on these soils are not normally irrigated."

"hPAS","2w4","These soils are well suited to pastures and hay crops. Such grasses as hybrid bermudagrass and improved bahiagrasses grow well where well managed. Several legumes are also well adapted. These plants require nutrient management and controlled grazing for highest yields."

"iWMG","2w4","These soils need a water table management system designed to remove excess water rapidly after heavy rains. Carefully designed tile or open drains are needed. Tile drains can also be used to supply water to plants during periods of low rainfall by subirrigation."

3e5 Map Unit 27(Albany part)

"aSOI","3e5","This capability unit consists of nearly level, very poorly drained soils that occur on flood plains. These soils are mineral soils."

"bSAC","3e5","The root zone is restricted by a water table that is at or above the surface during wet seasons. The internal drainage is slow and response to artificial drainage is poor. The available water capacity is medium. Permeability is rapid to moderately rapid in the surface layers and slow to very slow in the subsoils. Natural fertility is low to medium, and organic matter content is low."

"cH2O","3e5","In normal years these hydric soils have a seasonal high water table within 6 inches of the surface for 2 to 6 months or more. In other months the water table is usually below these depths. These soils are also flooded frequently for long duration. Most often flooding occurs in the spring and summer, but it may occur during any wet season."

"dCUL","3e5","These soils are not suited to cultivated crops without extensive water table and flood control management systems. Wetness, restricted rooting zone, slow internal drainage, and difficulty in obtaining adequate drainage outlets severely limit their use for cultivated crops. Water table management systems are hard to establish and maintain."

"eERO","3e5","Erosion is not a management concern on crops produced on these hydric soils if they happen to be cultivated."

"fIRR","3e5","If cultivated, highest yields require irrigation either subirrigated through the extensive water table management system or by sprinklers."

"hPAS","3e5","These hydric soils are not suited to pasture or hay crops without an extensive water table management system."

"iWMG","3e5","Because of the slow internal movement of water through the subsoils, and usually the lack of good outlets in areas where these soils occur, good water table management systems are difficult to establish and maintain. These systems normally require an extensive system of canals and ditches. A diking and/or pumping system for control of flood waters is also needed."

3s2 Map Unit 48(Shadeville part)

aSOI","3s2","This map unit consists of sloping, well or moderately well drained soils on low ridges. They have sandy surface and subsurface layers that are 20 to 40 inches thick, and moderately slowly permeable to slowly permeable loamy and clayey subsoil layers."

"bSAC","3s2","These soils have a well aerated root zone that is limited at about 45 inches by slowly permeable subsoils or by wetness. The available water capacity averages low to moderate in the root zone. Natural fertility is low and crop response to fertilization is moderate. Rainfall is rapidly absorbed on well vegetated areas. Runoff from unprotected areas is moderate and the hazard of erosion on these areas is moderate."

"cH2O","3s2","In normal years these soils have a seasonal high water table at a depth of between 36 and 48 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL","3s2","These soils have severe limitations for cultivated crops due to droughtiness and erosion. Droughtiness and rapid leaching of plant nutrients limit the choice of crops and the potential yields of adapted crops. The steepness of slopes further limits the suitability by making cultivation more difficult and increasing the hazard of erosion. Yields can be maximized with nutrient management."

"eERO","3s2","Intensive erosion control measures such as cultivating row crops on the contour and in alternate strips with cover crops are needed. Crop rotations should include cover crops at least two-thirds of the time. These cover crops and all residues of other crops should be returned to the soil."

"fIRR","3s2","Irrigation of some high value crops such as tobacco is usually feasible where irrigation water is readily available."

"hPAS","3s2","These soils are moderately well suited to pastures. Hybrid bermudagrass and bahiagrasses are well adapted but yields are reduced during periodic droughts. They produce well where nutrient management is practiced. Controlled grazing is needed to maintain vigorous plants for maximum yields, minimize the effects of droughts and to maintain good ground cover to minimize erosion."

"iWMG","3s2","Water table management is not normally practiced on these soils."

3s7 Map Unit 34

"aSOI","3s7","This map unit consists of nearly level and gently sloping, moderately well drained soils that occur on narrow to broad ridges and isolated knolls. They have very rapidly permeable sandy layers to depths of more than 80 inches."

"bSAC","3s7","The root zone of these soils is limited by a seasonal high water table in wet seasons and by droughtiness during periods of low rainfall. The available water capacity is low in the root zone. Natural fertility is low and crop response to fertilization is low to moderate. Rainfall is rapidly absorbed and there is little runoff. The hazard of erosion is slight."

"cH2O","3s7","In normal years these soils have a seasonal high water table at a depth of between 40 and 60 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL","3s7","These soils have severe limitations for most cultivated crops due to droughtiness and the rapid leaching of plant nutrients. These factors also limit the choice of plants and reduces potential yields of adapted crops. Crop rotations should include close growing crops on the land at least two-thirds of the time. Nutrient management maximizes yields. Soil improving cover crops and all crop residues should be left on the ground."

"fIRR","3s7","Irrigation of high value crops is usually feasible where irrigation water is readily available."

"hPAS","3s7","These soils are moderately well suited to pastures. Hybrid bermudagrass and bahiagrasses are adapted. White clover and lespedezas are also adapted. These soils produce good yields where nutrient management is practiced. Controlled grazing is needed to maintain vigorous plants for maximum yields."

"iWMG","3s7","Tile, or other types of drains, are needed for some crops such as tobacco that are damaged by high water table during the growing season. Tiles can also be used as a source for subirrigation during periods of low rainfall."

3s21 Map Units 4, 5(Otela part), 48(Otela part)

"aSOI","3s21","This map unit consists of sloping, well drained soils on upland ridges. They have sandy surface and subsurface layers that are 40 to 80 inches thick, and moderately permeable loamy subsoil layers."

"bSAC","3s21","These soils have a well aerated root zone that is limited by a seasonal high water table in wet season and droughtiness during periods of low rainfall. The available water capacity averages low to moderate in the root zone. Natural fertility is low and crop response to fertilization is moderate. Rainfall is rapidly absorbed on well vegetated areas. Runoff from unprotected areas is slight and the hazard of erosion on these areas is slight to moderate."

"cH2O","3s21","In normal years these soils have a seasonal high water table at a depth of between 48 and 72 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL","3s21","These soils have severe limitations for cultivated crops due to droughtiness. Droughtiness and the rapid leaching of plant nutrients limit the choice of crops and the potential yields of adapted crops. Yields can be maximized with nutrient management. Crop rotations should include cover crops at least two-thirds of the time. These cover crops and all residues of other crops should be returned to the soil."

"eERO","3s21,"Moderate erosion control measures such as cultivating row crops on the contour in alternate strips with cover crops are needed."

"fIRR","3s21","Irrigation of some high value crops is usually feasible where irrigation water is readily available."

"hPAS","3s21","These soils are moderately well suited to pastures. Hybrid bermudagrass and bahiagrasses are well adapted but yields are reduced during periodic droughts. They produce well where nutrient management is practiced. Controlled grazing is needed to maintain vigorous plants for maximum yields, minimize the effects of droughts and to maintain good ground cover to minimize erosion."

"iWMG","3s21","Water table management is not normally practiced on these soils."

3w4 Map Unit 36

"aSOI","3w4","This map unit consists of nearly level, poorly drained soils on flatwoods, hammocks, and other flat areas. They have sandy surface and subsurface layers 20 to 40 inches thick over moderately to moderately rapidly permeable loamy layers."

"bSAC","3w4","The root zone is limited by a seasonal high water table that comes to near the surface in wet seasons. The available water capacity averages moderate in the root zone. Natural fertility is low but crop response to fertilization is good. Internal drainage is slow but response to artificial drainage is moderate to rapid. The hazard of erosion is slight."

"cH2O","3w4","In normal years these soils have a seasonal high water table at a depth of between 6 and 18 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL","3w4","These soils have severe limitations for cultivated crops because of wetness. With a total water management system these soils are suited to such crops as corn and soybeans. Management should include crop rotations that keep the soil in close growing cover crops at least two-thirds of the time. The cover crops and all other crop residue should be returned to the soil. Maximum yields require good soil tilth and nutrient management."

"eERO","3w4","Erosion control is not a management concern on these soils."

"fIRR","3w4","Crops produced on these soils are not normally irrigated."

"gCIT","3w4","With proper water table management these soils are suited to citrus crops. Good management includes adequate water control to maintain the water table at least three feet below the surface. The trees should be planted on beds. Nutrient management is a preferred practice. Close growing vegetation between the trees is needed to protect the soil from erosion. Irrigation is required for proper yields."

"hPAS","3w4","These soils are well suited to pastures and hay crops. Improved grasses such as improved bahiagrasses are well adapted. Several varieties of clovers are also well adapted where properly managed. High yields require nutrient management, water table management, and controlled grazing to prevent overgrazing."

"iWMG","3w4","A total water table management system should remove excess water rapidly and provide a means of applying subirrigation. Tile drains, open ditches, and/or tail-race recovery systems may be needed to maintain the preferred water table depths. To obtain adequate drainage, the spacing of tile drains is important. Tile drains may be used for subirrigation during periods of low rainfall."

3w7 Map Units 26, 43(Albany part), 44

"aSOI","3w7","This map unit consists of nearly level and gently sloping, somewhat poorly drained soils on low ridges within the flatwoods and broad flats of the uplands. They have rapidly permeable sandy layers to depths of 20 to 60 inches over moderately to moderately rabidly permeable subsoil."

"bSAC","3w7","The root zone of these soils is limited by a seasonal high water table in wet seasons and by droughtiness during periods of low rainfall. The available water capacity is low in the root zone. Natural fertility is low but the response to fertilizers is moderate. Rainfall is rapidly absorbed and there is little runoff. The hazard of erosion is moderate on that part of the map unit between 2 to 5 percent slopes which has been assigned to this capability class."

"cH2O","3w7","In normal years these soils have a seasonal high water table at a depth of between 18 and 40 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL","3w7,"These soils have severe limitations for most cultivated crops due to wetness in wet seasons, droughtiness during periods of low rainfall, rapid leaching of plant nutrients and the hazard of erosion on slopes greater than 2 percent. These factors also limit the choice of plants and reduces potential yields of adapted crops. Maximum yields require proper seedbeds and nutrient management. Soil improving cover crops and all crop residues should be left on the ground. Erosion control measures are needed on that part of the map unit between 2 to 5 percent slopes which has been assigned to this capability class."

"eERO","3w7","Erosion control measures are needed on these soils on slopes above 2 percent. These include contour cultivation of row crops in alternate strips with cover crops. Crop rotations are needed that include cover crops at least two-thirds of the time. Soil improving cover crops and all crop residues should be left on the soil. Conservation tillage or no-till best protect the soil."

"fIRR","3w7","Irrigation of high value crops is usually feasible where irrigation water is readily available."

"hPAS","3w7","These soils are moderately suited to pastures. Hybrid bermudagrass and bahiagrasses are adapted. White clover and lespedezas are also adapted. These soils produce good yields where nutrient management is practiced. Controlled grazing is needed to maintain vigorous plants for maximum yields."

"iWMG","3w7","Tile, or other types of drains, are needed for some crops such as tobacco that are damaged by high water table during the growing season. Tiles can also be used as a source for subirrigation during periods of low rainfall."

3w8 Map Unit 16

"aSOI","3w8","This map unit consists of nearly level, poorly drained soils on flatwoods, hammocks, and upland hardwood hammocks. They have moderately permeable sandy surface and subsurface layers and loamy subsoils 40 to 60 inches thick over limestone bedrock."

"bSAC","3w8","The root zone is limited by a seasonal high water table that comes to near the surface in wet seasons and the limestone bedrock.. The available water capacity averages moderate in the root zone. Natural fertility is low but crop response to fertilization is good. Internal drainage is slow and response to artificial drainage is moderate. The hazard of erosion is slight."

"cH2O","3w8","In normal years these soils have a seasonal high water table at a depth of between 6 and 18 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL","3w8","These soils have severe limitations for cultivated crops because of wetness. With a total water management system these soils are suited to such crops as corn and soybeans. Management should include crop rotations that keep the soil in close growing cover crops at least two- thirds of the time. The cover crops and all other crop residue should be returned to the soil. Maximum yields require good soil tilth and nutrient management."

"eERO","3w8","Crops produced on these soils do not normally need special erosion control practices."

"fIRR","3w8","Crops produced on these soils are not normally irrigated."

"hPAS","3w8","These soils are well suited to pastures and hay crops. Improved grasses such as improved bahiagrasses are well adapted. Several varieties of clovers are also well adapted where properly managed. High yields require nutrient management, water table management, and controlled grazing to prevent overgrazing."

"iWMG","3w8","A total water table management system should remove excess water rapidly and provide a means of applying subirrigation. Tile drains, open ditches, and/or tail-race recovery systems may be needed to maintain the preferred water table depths. To obtain adequate drainage, the spacing of tile drains is important. Tile drains may be used for subirrigation during periods of low rainfall."

3w9 Map Unit 27(Ridgewood part)

"aSOI","3w9","This map unit consists of nearly level and gently sloping, somewhat poorly drained soils on low ridges within the flatwoods. They have rapidly permeable sandy layers to depths of more than 40 inches."

"bSAC","3w9","The root zone of these soils is limited by a seasonal high water table in wet seasons and by droughtiness during periods of low rainfall. The available water capacity is low in the root zone. Natural fertility is low but crop response to fertilization is moderate. Rainfall is rapidly absorbed and there is little runoff. The hazard of erosion is slight."

"cH2O","3w9","In normal years these soils have a seasonal high water table at a depth of between 18 and 40 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL","3w9,"These soils have severe limitations for most cultivated crops due to wetness in wet seasons, droughtiness during periods of low rainfall, and the rapid leaching of plant nutrients. These factors also limit the choice of plants and reduces potential yields of adapted crops. Crop rotations should include close growing crops on the land at least two-thirds of the time. Nutrient management maximizes yields. Soil improving cover crops and all crop residues should be left on the ground."

"eERO","3w9","Crops produced on these soils do not normally need special erosion control practices."

"fIRR","3w9","Irrigation of high value crops is usually feasible where irrigation water is readily available. Good yields of citrus crops can normally be grown without irrigation, but irrigation to maintain optimum yields is usually feasible where irrigation water is readily available."

"gCIT","3w9","These soils are moderately well suited to citrus trees where they occur in places that are relatively free from freezing temperatures. A good ground cover of close growing vegetation is needed between the trees to minimize erosion. Good yields of citrus crops can normally be grown without irrigation."

"hPAS","3w9","These soils are well suited to pastures. Pangola grass, hybrid bermudagrass, and bahiagrasses are well adapted. White clover and lespedeza are also well adapted. These soils produce good yields where nutrient management is practiced. Controlled grazing is needed to maintain vigorous plants for maximum yields."

"iWMG","3w9","Tile, or other types of drains, are needed for some crops such as citrus that are damaged by high water table during the growing season. Tiles can also be used as a source for subirrigation during periods of low rainfall."

4s7 Map Units 2, 5(Penney), 48(Penney)

"aSOI","4s7","This map unit consists of nearly level and gently sloping, well drained to excessively drained soils on to broad ridges. These soils have very rapidly permeable sandy layers to depths of more than 80 inches."

"bSAC","4s7","The root zone of these soils well aerated to a depth of 80 inches or more. Root development is limited by droughtiness. The available water capacity is low to very low in the root zone. Natural fertility is low and crop response to fertilization is low to moderate. Rainfall is rapidly absorbed and there is little runoff. The hazard of erosion is slight."

"cH2O","4s7","In normal years these soils do not have a seasonal high water table within a depth of 80 inches."

"dCUL","4s7","These soils have very severe limitations for most cultivated crops due to droughtiness and the rapid leaching of plant nutrients. These factors also limit the choice of plants and reduces potential yields of adapted crops. Crop rotations should include close growing crops on the land at least two-thirds of the time. Irrigation and nutrient management are requirements for acceptable yields. Soil improving cover crops and all crop residues should be left on the ground."

"fIRR","4s7","Although irrigation is a requirement for acceptable yields, due to the low water holding capacity of these soils, irrigation of all crops except a high value crops is not usually feasible. Locating a reliable and economical source of irrigation water is another management concern."

"hPAS","4s7","These soils are moderately suited to pastures. Deep-rooting plants such as Hybrid bermudagrass and bahiagrasses are adapted but yields are restricted due to droughtiness. Nutrient management is a required practice. Controlled grazing is needed to maintain vigorous plants for maximum yields."

"iWMG","4s7","Water table management is not normally practiced on these soils."

4w4 Map Unit 6(Oaky)

"aSOI","4w4,"This map unit consists of nearly level, poorly drained soils and very poorly soils in small depressions. They have sandy surface and subsurface layers less than 20 inches thick over moderately to slowly permeable loamy and clayey layers."

"bSAC","4w4","The root zone is limited by a seasonal high water table that comes to near the surface in wet seasons. The available water capacity averages moderate in the root zone. Natural fertility is low but crop response to fertilization is good. Internal drainage i s slow but response to artificial drainage is moderate to rapid. The hazard of erosion is slight."

"cH2O","4w4","In normal years these soils have a seasonal high water table at a depth of between 6 and 18 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the watertable above the normal seasonal high water table depth."

"dCUL","4w4","These soils have severe limitations for cultivated crops because of wetness. With a total water management system these soils are suited to such crops as corn and soybeans. Management should include crop rotations that keep the soil in close growing cover crops at least two-thirds of the time. The cover crops and all other crop residue should be returned to the soil. Maximum yields require good soil tilth and nutrient management."

"eERO","4w4","If these soils are cultivated, erosion control measures are not normally needed."

"fIRR","4w4","Crops produced on these soils are not normally irrigated."

"hPAS","4w4","These soils have only fair suitability for pastures. Grasses such as hybrid bermudagrass and bahiagrass make only fair growth where an intensive nutrient management system is maintained. Clovers are not adapted."

"iWMG","4w4","A total water table management system should remove excess water rapidly and provide a means of applying subirrigation. Tile drains, open ditches, and/or tail-race recovery systems may be needed to maintain the preferred water table depths. To obtain adequate drainage, the spacing of tile drains is important. Tile drains may be used for subirrigation during periods of low rainfall."

4w5 Map Units 7, 9(Sapelo), 14

"aSOI","4w5","This map unit consists of nearly level, poorly drained soils on flatwoods, hammocks, and other flat areas. They have sandy layers more than 72 inches thick and a spodic horizon within 30 inches of the surface."

"bSAC","4w5","The root zone is limited by a seasonal high water table that comes to near the surface in wet seasons. The available water capacity averages moderate in the root zone. Natural fertility is low but crop response to fertilization is good. Internal drainage is slow but response to artificial drainage is moderate to rapid. The hazard of erosion is slight."

"cH2O","4w5","In normal years these soils have a seasonal high water table at a depth of between 6 and 18 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL","4w5","These soils have severe limitations for cultivated crops because of wetness. With a total water management system these soils are suited to such crops as corn and soybeans. Management should include crop rotations that keep the soil in close growing cover crops at least two-thirds of the time. The cover crops and all other crop residue should be returned to the soil. Maximum yields require good soil tilth and nutrient management."

"eERO","4w5","Crops produced on these soils do not normally need special erosion control practices."

"fIRR","4w5",Crops produced on these soils are not normally irrigated."

"hPAS","4w5","These soils are well suited to pastures and hay crops. Improved grasses such as improved bahiagrasses are well adapted. Several varieties of clovers are also well adapted where properly managed. High yields require nutrient management, water table management, and controlled grazing to prevent overgrazing."

"iWMG","4w5","A total water table management system should remove excess water rapidly and provide a means of applying subirrigation. Tile drains, open ditches, and/or tail-race recovery systems may be needed to maintain the preferred water table depths. To obtain adequate drainage, the spacing of tile drains is important. Tile drains may be used for subirrigation during periods of low rainfall."

4w7 Map Unit 20

"aSOI","4w7","This map unit consists of nearly level, poorly drained soils on flatwoods, hammocks, and other flat areas. They have sandy surface and subsurface layers 20 to 60 inches thick over moderately to moderately rapidly permeable loamy layers."

"bSAC","4w7","The root zone is limited by a seasonal high water table that comes to near the surface in wet seasons. The available water capacity averages moderate in the root zone. Natural fertility is low but crop response to fertilization is good. Internal drainage is slow but response to artificial drainage is moderate to rapid. The hazard of erosion is slight."

"cH2O","4w7","In normal years these soils have a seasonal high water table at a depth of between 6 and 18 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL","4w7","These soils have severe limitations for cultivated crops because of wetness. With a total water management system these soils are suited to such crops as corn and soybeans. Management should include crop rotations that keep the soil in close growing cover crops at least two-thirds of the time. The cover crops and all other crop residue should be returned to the soil. Maximum yields require good soil tilth and nutrient management."

"eERO","4w7","Crops produced on these soils do not normally need special erosion control practices."

"fIRR","4w7",Crops produced on these soils are not normally irrigated."

"hPAS","4w7","These soils are well suited to pastures and hay crops. Improved grasses such as improved bahiagrasses are well adapted. Several varieties of clovers are also well adapted where properly managed. High yields require nutrient management, water table management, and controlled grazing to prevent overgrazing."

"iWMG","4w7","A total water table management system should remove excess water rapidly and provide a means of applying subirrigation. Tile drains, open ditches, and/or tail-race recovery systems may be needed to maintain the preferred water table depths. To obtain adequate drainage, the spacing of tile drains is important. Tile drains may be used for subirrigation during periods of low rainfall."

4w24 Map Units 31, 42(Sapelo)

"aSOI","4w24","This map unit consists of nearly level, poorly drained soils on flatwoods, hammocks, and other flat areas. They have sandy layers more than 72 inches thick and a spodic horizon within 30 inches of the surface."

"bSAC",4w24","The root zone is limited by a seasonal high water table that is at or slightly above the surface in wet seasons. The available water capacity averages moderate in the root zone. Natural fertility is low but crop response to fertilizer is good. Internal drainage is slow but response to artificial drainage is moderate to rapid. The hazard of erosion is slight."

"cH2O","4w24","In normal years these soils have a seasonal high water table at a depth of 6 inches or less for 2 to 6 months. In other months the water table is usually below this depth. During periods of high rainfall the water table may be above the surface for periods of brief duration."

"dCUL","4w24","Cultivation of these hydric soils is not recommended. If cultivated, these soils have severe limitations because of wetness. With a total water management system these soils are suited to a variety of fruit and vegetable crops. Management should include crop rotations that keep the soil in close growing cover crops at least two-thirds of the time. The cover crops and all other crop residue should be returned to the soil. Maximum yields require good soil tilth and nutrient management."

"eERO","4w24","Crops produced on these hydric soils do not normally need special erosion control practices."

"fIRR","4w24","If cultivated, Highest yields require irrigation during periods of low rainfall either subirrigated through a water table management system or by sprinklers."

"hPAS","4w24","These hydric soils are well suited to pastures and hay crops. Improved grasses such as the improved bahiagrasses are well adapted. Several varieties of clovers are also well adapted where properly managed. High yields require nutrient management, water table management, and controlled grazing to prevent overgrazing."

"iWMG","4w24","If cropped, these hydric soils need a total water table management system to remove excess water rapidly and provide a means of applying subirrigation. Tile drains, open ditches, and/or tail-race recovery systems may be needed to maintain the preferred water table depths of within 18 inches for vegetables and below four feet for citrus. To obtain adequate drainage, the spacing of tile drains is important. Tile drains may be used for subirrigation during periods of low rainfall."

4w26 Map Unit 13

"aSOI","4w26","This map unit consists of nearly level, poorly drained soils on low flatwoods, low hammocks, and sloughs. They have sandy surface and subsurface layers 20 to 60 inches thick over moderately to moderately rapidly permeable loamy layers."

"bSAC","4w26","The root zone is limited by a seasonal high water table that is at or slightly above the surface in wet seasons. The available water capacity averages moderate in the root zone. Natural fertility is low but crop response to fertilization is good. Internal drainage is slow but response to artificial drainage is moderate to rapid. The hazard of erosion is slight."

"cH2O","4w26","In normal years these soils have a seasonal high water table at a depth of 6 inches or less for 2 to 6 months. In other months the water table is usually below this depths. During periods of high rainfall the water table may be above the surface for periods of brief duration."

"dCUL","4w26","Cultivation of these hydric soils is not recommended. If cultivated, these soils have severe limitations because of wetness. With a total water management system these soils are suited to a variety of fruit and vegetable crops. Management should include crop rotations that keep the soil in close growing cover crops at least two-thirds of the time. The cover crops and all other crop residue should be returned to the soil. Maximum yields require good soil tilth and nutrient management."

"eERO","4w26","Crops produced on these hydric soils do not normally need special erosion control practices."

"fIRR","4w26","If cultivated, highest yields require irrigation during periods of low rainfall either through subirrigation through a water table management system or by sprinklers."

"hPAS","4w26","These hydric soils are well suited to pastures and hay crops. Improved grasses such as the improved bahiagrasses are well adapted. Several varieties of clovers are also well adapted where properly managed. High yields require nutrient management, water table management, and controlled grazing to prevent overgrazing."

"iWMG","4w26","If cropped, these hydric soils need a total water table management system to remove excess water rapidly and provide a means of applying subirrigation. Tile drains, open ditches, and/or tail-race recovery systems may be needed to maintain the preferred water table depths of within 18 inches for vegetables and below four feet for citrus. To obtain adequate drainage, the spacing of tile drains is important. Tile drains may be used for subirrigation during periods of low rainfall."

5w1 Map Units 45(Wekiva part), 46(Tooles part)

"aSOI","5w1","This map unit consists of nearly level, poorly drained and very poorly drained soils on flood plains. These soils are subject to common flooding during the growing season."

"bSAC","5w1","Wetness and flooding severely limits the use of the root zone of these soils for agronomic crops."

"cH2O","5w1","In normal years these hydric soils have a seasonal high water table within 6 inches of the surface for 2 to 6 months or more. In other months the water table is usually below these depths. These soils are also flooded frequently for long duration. Most often flooding occurs in the spring, but it may occur during any wet season."

"dCUL","5w1","These hydric soils are not suited to cultivated crops without an extensive water table management system."

"eERO","5w1","Erosion is not a management concern on crops produced on these hydric soils."

"fIRR","5w1","If cultivated, highest yields require irrigation either subirrigated through the extensive water table management system or by sprinklers."

"hPAS","5w1","These hydric soils are not suited to pasture or hay crops without an extensive water table management system."

"iWMG","5w1","If these hydric soils are cultivated, an extensive water table management system is needed for crop and pasture production on these soils. It should remove excess water rapidly and provide a means of applying subirrigation. Dikes and a pumping systems are needed for flood control and tile drains and open ditches are needed to maintain the preferred water table depth. Rarely are drainage and flood protection economically feasible and environmentally sound."

5w2 Map Unit 33(Tooles part)

"aSOI","5w2","This map unit consists of nearly level, poorly drained soils in sloughs of the lowlands. They have sandy layers more than 15 inches deep. These soils are underlain by limestone bedrock."

"bSAC","5w2","Wetness, depth to limestone bedrock, and shallow flowing water severely limits the use of the root zone of these soils for agronomic crops."

"cH2O","5w2","In normal years these hydric soils have a seasonal high water table within 6 inches of the surface for 2 to 6 months or more. In other months the water table is usually below these depths. These soils are also subject to having shallow flowing water on the surface during wet seasons."

"dCUL","5w2","These hydric soils are not suited to cultivated crops without an extensive water table management system."

"eERO","5w2","Erosion is not a management concern on crops produced on these hydric soils."

"fIRR","5w2","If cultivated, highest yields require irrigation either subirrigated through the extensive water table management system or by sprinklers."

"hPAS","5w2","These hydric soils are not suited to pasture or hay crops without an extensive water table management system."

"iWMG","5w2","If these hydric soils are cultivated, an extensive water table management system is needed for crop and pasture production on these soils. It should remove excess water rapidly and provide a means of applying subirrigation. Dikes and a pumping systems are needed for water control and tile drains and open ditches are needed to maintain the preferred water table depth. Rarely are drainage and water movement protection economically feasible and environmentally sound."

5w4 Map Unit 45(Tooles)

"aSOI","5w4","This map unit consists of nearly level, poorly drained and very poorly drained soils in depressions. They have sandy or loamy upper layers less than 20 inches thick, and slowly permeable clayey subsoil layers. They are covered with shallow water much of the time."

"bSAC","5w4","Wetness and ponding severely limits the use of the root zone of these soils for agronomic crops."

"cH2O","5w4","In normal years these hydric soils have a seasonal high water table within 6 inches of the surface for 2 to 6 months or more. In other months the water table is usually below these depths. These soils are also ponded frequently for long duration. Most often ponding occurs in the winter and spring, but it may occur during any wet season."

"dCUL","5w4","These hydric soils are not suited to cultivated crops without an extensive water table management system."

"eERO","5w4","Erosion is not a management concern for crops produced on these hydric soils."

"fIRR","5w4","If cultivated, highest yields require irrigation either subirrigated through the extensive water table management system or by sprinklers."

"hPAS","5w4","These hydric soils are not suited to pasture or hay crops without an extensive water table management system."

"iWMG","5w4","If these hydric soils are cultivated, an extensive water table management system is needed for crop and pasture production on these soils. It should remove excess water rapidly and provide a means of applying subirrigation. Dikes and a pumping systems are needed for ponding control and tile drains and open ditches are needed to maintain the preferred water table depth. Rarely are drainage and ponding protection economically feasible and environmentally sound."

6s3 Map Unit 53

"aSOI","6s3","This map unit consists of sloping and strongly sloping excessively drained soils on side slopes of the uplands. They have rapidly permeable sandy layers to more than 80 inches."

"bSAC","6s3","These soils have a well aerated root zone more than 80 inches thick. Available water capacity averages low in the root zone. Natural fertility is low and crop response to fertilization is low. Rainfall is absorbed on protected areas and there is little runoff. The hazard of gully erosion is moderate on unprotected areas."

"cH2O","6s3","In normal years these soils do not have a seasonal high water table within a depth of 72 inches."

"dCUL","6s3","These soils are not suitable for cultivated crops because of droughtiness, slope, and susceptibility to erosion."

"eERO","6s3","If these soils are cultivated, erosion control measures that would adequately protect the soil and water resource base are difficult to install and/or maintain."

"fIRR","6s3","Irrigation of high value crops is usually feasible where irrigation water is readily available. The rate of water application should be low enough to prevent runoff and erosion. A well designed irrigation system to maintain optimum moisture conditions is needed to assure best citrus yields. The steepness of these soils make application of irrigation water difficult."

"hPAS","6s3","These soils are moderately suited to pastures. Deep rooting plants such as hybrid bermudagrass and bahiagrasses are adapted but yields are reduced by periodic droughts. Nutrient management is needed. Grazing should be greatly restricted to permit plants to maintain vigorous growth for highest yields and to provide good ground cover."

"iWMG","6s3","Water table management is not normally practiced on these soils."

6s7 Map Unit 52

"aSOI","6s7","This map unit consists of nearly level, somewhat poorly and moderately well drained soils on low ridges of the flatwoods. They have sandy layers to more than 72 inches deep. A layer 20 to 60 inches below the surface is weakly cemented with dark colored organic material."

"bSAC","6s7","The root zone is limited by a water table during wet seasons and by droughtiness during periods of low rainfall. The available water capacity is very low in the root zone. Natural fertility is very low and crop response to nutrient management is only fair. The internal drainage rate is slow under natural conditions but response to artificial drainage is rapid."

"cH2O","6s7","In normal years these soils have a seasonal high water table at a depth of 18 and 30 inches for 1 to 4 months. In other months the water table is usually below this depth. Only rarely, during periods of high rainfall, is the water table above 18 inches."

"dCUL","6s7","Due to the very low natural fertility, wetness in wet seasons, droughtiness during periods of low rainfall, and the rapid leaching of plant nutrients, these soils are not suited to cultivated field crops."

"eERO","6s7"," If these soils are cultivated, erosion control measures are not normally needed."

"fIRR","6s7","Irrigation of high value crops is usually feasible where irrigation water is readily available."

"hPAS","6s7","These soils have only fair suitability for pastures. Grasses such as hybrid bermudagrass and bahiagrass make only fair growth where an intensive nutrient management system is maintained. Clovers are not adapted."

"iWMG","6s7","Water table management is not normally practiced on these soils."

6w3 Map Units 18, 37(Surrency), 38, 42

"aSOI","6w3","This capability unit consists of nearly level, very poorly drained soils that occur in depressions. These soils are mineral soils."

"bSAC","6w3","The root zone is restricted by a water table that is at or above the surface during wet seasons. The internal drainage is slow and response to artificial drainage is poor. The available water capacity is medium. Permeability is rapid to moderately rapid in the surface layers and slow to very slow in the subsoils. Natural fertility is low to medium, and organic matter content is low."

"cH2O","6w3","In normal years these hydric soils have a seasonal high water table within 6 inches of the surface for 2 to 6 months or more. In other months the water table is usually below these depths. These soils are also ponded frequently for long duration with water approximately 2 feet above the surface. Most often ponding occurs in the winter and spring, but it may occur during any wet season."

"dCUL","6w3","These soils are not suited to cultivated crops without extensive water table and ponding control management systems. Wetness, restricted rooting zone, slow internal drainage, and difficulty in obtaining adequate drainage outlets severely limit their use for cultivated crops. Water table management systems are hard to establish and maintain."

"eERO","6w3","Erosion is not a management concern on crops produced on these hydric soils if they happen to be cultivated."

"fIRR","6w3","If cultivated, highest yields require irrigation either subirrigated through the extensive water table management system or by sprinklers."

"hPAS","6w3","These hydric soils are not suited to pasture or hay crops without an extensive water table management system."

"iWMG","6w3","Because of the slow internal movement of water, and the usual lack of good outlets in areas where these soils occur, good water table management systems are difficult to establish and maintain. These systems normally require an extensive system of canals and ditches. A diking and/or pumping system for control of ponding water is also needed."

6w4 Map Unit 28(Clara)

"aSOI","6w4","This capability unit consists of nearly level, very poorly drained soils that occur on flood plains. These soils are mineral soils."

"bSAC","6w4","The root zone is restricted by a water table that is at or above the surface during wet seasons. The internal drainage is slow and response to artificial drainage is poor. The available water capacity is medium. Permeability is rapid to moderately rapid in the surface layers and slow to very slow in the subsoils. Natural fertility is low to medium, and organic matter content is low."

"cH2O","6w4","In normal years these hydric soils have a seasonal high water table within 6 inches of the surface for 2 to 6 months or more. In other months the water table is usually below these depths. These soils are also flooded frequently for long duration. Most often flooding occurs in the spring and summer, but it may occur during any wet season."

"dCUL","6w4","These soils are not suited to cultivated crops without extensive water table and flood control management systems. Wetness, restricted rooting zone, slow internal drainage, and difficulty in obtaining adequate drainage outlets severely limit their use for cultivated crops. Water table management systems are hard to establish and maintain. The soils are also subject to waterlogging during wet seasons because of the slow water movement through the soil."

"eERO","6w4","Erosion is not a management concern on crops produced on these hydric soils if they happen to be cultivated."

"fIRR","6w4","If cultivated, highest yields require irrigation either subirrigated through the extensive water table management system or by sprinklers."

"hPAS","6w4","These hydric soils are not suited to pasture or hay crops without an extensive water table management system."

"iWMG","6w4","Because of the slow internal movement of water through the subsoils, and usually the lack of good outlets in areas where these soils occur, good water table management systems are difficult to establish and maintain. These systems normally require an extensive system of canals and ditches. A diking and/or pumping system for control of flood waters is also needed."

7w2 Map Units 10, 11, 15

"aSOI","7w2","This map unit consists of nearly level, very poorly drained organic soils in depressions and floodplains. These are hydric soils."

"bSAC","7w2","The root zone is limited by water that is above the surface in wet seasons. The available water capacity averages high in the root zone. Natural fertility is high. The internal drainage rate is very slow in the natural condition and seepage water seeps from the soil in wet seasons."

"cH2O","7w2","In normal years these soils have a seasonal high water table within 6 inches of the surface for 2 to 6 months of most years. During other months the water table is deeper. These soils are also subject to frequent ponding and/or flooding. Only rarely is the water table below the surface for an extended period."

"dCUL","7w2","These soils are not suited to cultivated crops without extensive water table and flood control management systems. Wetness, restricted rooting zone, slow internal drainage, and difficulty in obtaining adequate drainage outlets severely limit their use for cultivated crops. Water table management systems are hard to establish and maintain."

"eERO","7w2","Due to the lack of these soils being cultivated, erosion control is not a management concern."

"fIRR","7w2","Due to the lack of cultivation, irrigation is not a normal practice on these soils."

"hPAS","7w2","These hydric soils are not suited to pasture or hay crops without an extensive water table management system. Due to the difficulty of installing these measures and the lack of outlets in most areas, they have seldom, if ever, been used for pasture."

"iWMG","7w2","Water table management is not a normal practice on these soils because of the lack of cultivation."

7w3 Map Units 24, 37(Pantego)

"aSOI","7w3","These nearly level, very poorly drained, slow to very slowly permeable soils are located in depressional areas in the flatwoods and along the edges of swamps and marshes in the county. Under natural conditions these soils are ponded much of the year. During dry periods the water table is normally within 10 inches of the surface, but can recede lower during extended dry periods. Slopes are less than 2 percent. Permeability is rapid in the surface and subsurface layers and slow to very slow in the subsoil. The available water capacity is medium in the surface layer and subsoil and low in the subsurface layer. The organic matter content is high and natural fertility is medium."

"bSAC,"7w3","The root zone is limited by water that is above the surface in wet seasons. The available water capacity averages moderate in the root zone. Natural fertility is moderate. The internal drainage rate is very slow in the natural condition and seepage water seeps from the soil in wet seasons."

"cH2O","7w3","In normal years these soils have a seasonal high water table within 6 inches of the surface for 2 to 6 months of most years. During other months the water table is deeper. These soils are also subject to frequent ponding. Only rarely is the water table below the surface for an extended period."

"dCUL","7w3","Due to extreme wetness, these soils are not suited to cultivated crops."

"eERO","7w3","Due to the lack of these soils being cultivated, erosion control is not a management concern."

"fIRR","7w3","Due to the lack of cultivation, irrigation is not a normal practice on these soils."

"hPAS","7w3","If water control measures are established, these soil would be moderately well suited to improved pastures. Due to the difficulty of installing these measures and the lack of outlets in most areas, they have seldom, if ever, been used for pasture."

"iWMG","7w3","Water table management is not a normal practice on these soils because of the lack of cultivation."

7w5 Map Units 28(Meadowbrook part), 29, 33, 44(Meadowbrook part), 45(Rawhide part), 46(Rawhide part)

"aSOI","7w5","These nearly level, very poorly drained, slow to very slowly permeable soils are located in depressional areas in the flatwoods and along the edges of swamps and marshes in the county. Under natural conditions these soils are ponded much of the year. During dry periods the water table is normally within 10 inches of the surface, but can recede lower during extended dry periods. Slopes are less than 2 percent. Permeability is rapid in the surface and subsurface layers and slow to very slow in the subsoil. The available water capacity is medium in the surface layer and subsoil and low in the subsurface layer. The organic matter content is high and natural fertility is medium."

"bSAC","7w5","The root zone is limited by water that is above the surface in wet seasons. The available water capacity averages moderate in the root zone. Natural fertility is moderate. The internal drainage rate is very slow in the natural condition and seepage water seeps from the soil in wet seasons."

"cH2O","7w5","In normal years these soils have a seasonal high water table within 6 inches of the surface for 2 to 6 months of most years. During other months the water table is deeper. These soils are also subject to frequent ponding. Only rarely is the water table below the surface for an extended period."

"dCUL","7w5","Due to extreme wetness, these soils are not suited to cultivated crops."

"eERO","7w5","Due to the lack of these soils being cultivated, erosion control is not a management concern."

"fIRR","7w5","Due to the lack of cultivation, irrigation is not a normal practice on these soils. If water control measures are established, these soil would be moderately well suited to improved pastures. Due to the difficulty of installing these measures and the lack of outlets in most areas, they have seldom, if ever, been used for pasture."

"iWMG","7w5","Water table management is not a normal practice on these soils because of the lack of cultivation."

7w6 Map Units 6(Rawhide part), 7(Chaires part), 9(Chaires part), 18(Clara part), 32, 41, 43(Meadowbrook part)

"aSOI","7w6","This map unit consists of nearly level, poorly drained soils on flatwoods, hammocks, and other flat areas. They have sandy layers more than 72 inches thick and a spodic horizon within 30 inches of the surface."

"bSAC","7w6","These soils have a root zone that is limited by water that covers the surface for more than 6 months during most years under natural conditions. These soils have moderate natural fertility, but wetness and ponding makes them unsuited to cultivated crops."

"cH2O","7w6","In normal years these soils have a seasonal high water table up to 2 feet above the surface for up to 6 months of the year. During other months the water table is deeper. Only rarely is the water table below the surface for an extended period."

"dCUL","7w6","Due to extreme wetness, these soils are not suited to cultivated crops."

"eERO","7w6","Due to the lack of these soils being cultivated, erosion control is not a management concern."

"fIRR","7w6","Due to the lack of cultivation, irrigation is not a normal practice on these soils."

"hPAS","7w6","If water control measures are established, this soil would be moderately well suited to improved pastures. Due to the difficulty of installing these measures and the lack of outlets in many areas, it has seldom, if ever, been used for pasture."

"iWMG","7w6","Water table management is not a normal practice on these soils because of the lack of cultivation."

ECOLOGICAL COMMUNITIES

kRNG - Rangeland
lWLD - Wildlife
mWOD - Woodland

Longleaf Pine - Turkey Oak Hills - Map Units 2, 4, 5, 34, 48, 53

"kRNG","04","This Longleaf Pine - Turkey Oak Hills range site provides poor quality and low quantity forage and has limited potential for producing native forage. Sites in excellent condition produce 2000 to 4000 pounds per acre annually. Ten to 35 acres or more are usually needed per animal unit. Little forage will be available if the tree canopy cover exceeds 60%. Forage is usually 75% grasses and grass-like plants, 15% trees and shrubs, and 10% forbs."

"lWLD","04","This Longleaf Pine - Turkey Oak Hills site is suited to deer and turkey, especially as escape cover. Many birds inhabit the area including warblers, towees, flycatchers, scrub jays, and quail. Native legumes furnish food (seeds) for the birds. Fruits of palmetto, gopher apple, and various species of oak are also a good food source. Timber harvest and other disturbances increase wildlife food by increasing the amount and types of herbaceous plants and by sprout production."

"mWOD","04","This Longleaf Pine - Turkey Oak Hills site has a moderately high potential for commercial production of wood and timber. The soils create moderate equipment limitations and moderate seedling mortality problems. Commercial species suited to planting and their potential annual growth in cords are as follows; Sand pine, 1.2 to 1.0. Slash pine, 1.2 to 1.0. Loblolly pine, 1.0 to 0.8. Longleaf pine, 0.6 to 0.5."

Mixed Hardwood and Pine – Map Units 26, 27, 39, 43, 44*, 54*

"kRNG","05","This Mixed Hardwood and Pine range site provides good quality and high quantity forage especially in its early stages of succession before canopy cover becomes excessive and reduces forage value. Sites in excellent condition produce 3000 to 4500 pounds per acre annually. Eight to 23 acres or more are usually needed per animal unit. Little forage will be available if the tree canopy cover exceeds 60%. Forage is usually 50% grasses and grass-like plants, 30% trees and shrubs, and 20% forbs."

"lWLD","05","This Mixed Hardwood and Pine site is well suited to deer, turkey, squirrel, and many songbirds. Hardwood mast (acorns, nuts, fruits, buds, and berries) furnish a good source of wildlife food. Mature hardwoods and snags provide good nesting sites for birds. Habitat is good for raccoons, opossums, quail, and dove; fair for reptiles, and poor for most amphibians."

"mWOD","05","This Mixed Hardwood and Pine site has a high potential for commercial production of wood and timber. The soils create no serious management problems. Commercial species suited to planting and their potential annual growth in cords are as follows: Slash pine, 1.5 to 1.4. Loblolly pine, 1.2 to 1.1. Longleaf pine, 0.8 to 0.7."

North Florida Flatwoods - Map Units 6*, 7*, 9*, 13, 14, 16, 20, 31, 33*, 36, 42*, 52, 54*

"kRNG","07","This North Florida Flatwoods range site has the potential for producing significant amounts of high quality forage from chalky bluestem, indiangrass, and panicums. Sites in excellent condition produce 3000 to 5500 pounds per acre annually. Five to 15 acres or more are usually needed per animal unit. Little forage will be available if the tree canopy cover exceeds 60%. Forage is usually 75% grasses and grass-like plants, 15% trees and shrubs, and 10% herbaceous plants."

"lWLD","07","The North Florida Flatwoods community is well suited for deer, quail and turkey. It is fair for squirrels and well suited for many songbirds, particularly warblers. It is also well suited for bobcat, skunks, opossums, and raccoons. It is poorly suited for dove."

"mWOD","07","This community has a moderate potential productivity for commercial wood production. There are moderate equipment limitations and seedling mortality due to wet soil conditions. The commercial species suitable for planting is slash pine."

Wetlands Hardwood Hammock – Map Unit 45*, 46

"kRNG","12","This Wetlands Hardwood Hammock site is sometimes used for woodland grazing but it has little or no range value."

"lWLD","12","This Wetlands Hardwood Hammock site is well suited to diverse wildlife population including deer, turkey, squirrel, black bear, feral and wild hogs, woodpeckers, owls, and many other furbearers. Hardwood mast (acorns, nuts, fruits, buds, and berries) furnish a good source of wildlife food. Habitat is poor for quail and dove; fair for many songbirds; and, because of the moist to wet soils, excellent for reptiles and amphibians."

"mWOD","12","This Wetland Hardwood Hammock site, when managed for hardwood production, produces high quality products. It also has a potential for commercial production of wood and timber. The soils must be drained for production of commercial conifers and many areas have been drained and planted to pine. Commercial pine species planted include slash pine and loblolly pine; however, this site is best suited to hardwoods and should be used for that purpose."

Cypress Swamp - Map Unit 15*

"kRNG","17","This Cypress Swamp site has little or range value."

"lWLD","17","This community is very important for wildlife refuge areas and as a turkey roosting area. It is well suited for waterfowl and wading birds. Aquatic animals may be found in large numbers. The permanent residents of cypress heads are relatively few, but much of the wildlife of the flatwoods is dependant on these ponds for breeding purposes."

"mWOD","17","Commercial wood production is not recommended. Extensive drainage would be required, thereby destroying this community."

Swamp Hardwoods - Map Unit 6*, 7*, 9*, 10, 11, 15*, 18, 24, 28, 29, 32, 33*, 37*, 38, 41, 42*, 44*, 45*

"kRNG","21","This Swamp Hardwoods site has little or no range value."

"lWLD","21","This community hosts a large variety of wildlife. It is especially well suited for waterfowl, reptiles, amphibians, and mammals. Animals found in this community must withstand the flooding which occurs periodically. Gray squirrel, mink, raccoon, and river otter are the most commonly found mammals. Many birds inhabit this area including chickadees, titmice, yellow-billed cuckoo, wood duck, limpkin, flycatchers, owls, turkey, woodcock, hooded warbler, cedar waxwing, woodpeckers, and wren. The various species of hardwood vegetation provide good food and cover for these species."

"mWOD","21","This Swamp Hardwoods community is generally not used for commercial woodland production except for limited harvest of hardwoods. However, this community does have a high potential for commercial woodland production on areas with adequate surface drainage. There are severe equipment limitations and seedling mortality due to the poorly to very poorly drained soil conditions. Slash pine is suitable for planting in areas with adequate surface drainage."

Freshwater Marsh and Ponds – Map Unit 37*

"kRNG","25","This Freshwater Marsh and Ponds range site has the potential for producing significant amounts of high quality forage from a variety of high quality forage plants. Sites in excellent condition produce 5000 to 10000 pounds per acre annually. Three to 13 acres or more are usually needed per animal unit. Forage is usually 80% grasses and grass-like plants, 5% trees and shrubs, and 15% herbaceous plants."

"lWLD","25","This Freshwater Marsh and Ponds site is well suited to a wide variety of wetland wildlife species including waterfowl, reptiles, amphibians, and mammals. These species must withstand ponding of long or very long duration. Inhabitants include mink, otter, raccoons, herons, bitterns, ibis, cranes, snipe, ducks, kites, killdeer, caracara, and hawks. This community also serves as a water source for species from surrounding communities."

"mWOD","25","This Freshwater Marsh and Ponds site is seldom used for the commercial production of wood and timber. The soils create very severe limitations that are difficult to overcome."

URBAN USES

oURB – Urban Use Statement
pSEP – Septic Tank Absorption Fields
qLRS – Local Roads and Streets

Map Units 28, 29, 38, 39, 41, 43, 44, 45, 46, 54

"oURB","01","This soil is generally unsuited to most urban uses because of flooding. Dwellings and small buildings can be constructed on pilings, however, access may be limited during flood events and structural integrity of the building may be threatened by currents and floating debris. Landscaping considerations should include use of species that are adapted to withstanding flood water."

"pSEP","01","This soil has very severe limitations for septic tank absorption fields. Flooding interferes with absorption of effluent from septic tanks and poses risks of contamination to adjacent surface waters."

"qLRS","01","This soil has severe limitations for local roads and streets. Road surfaces and bases may be eroded by floodwaters and travel is dangerous or impractical during flood events."

Map Units 18, 24, 32, 37

"oURB","02","This soil is generally unsuited to most urban uses because of ponding and low bearing strength of the soil. Dwellings and small buildings can be constructed on pilings driven to suitable depths, however, access may be limited during periods when water tab les are highest. Drainage may be impractical in many areas because of a lack of suitable outlets. Landscaping considerations should include use of species that are adapted to ponded water and organic soils."

"pSEP","02","This soil has severe limitations for septic tank absorption fields. Ponded water tables and organic soil materials interfere with the absorption of effluent from septic tanks and pose risks of contamination to adjacent surface waters."

"qLRS","02","This soil has severe limitations for local roads and streets. Road and street surfaces may subside, crack or ripple if sufficient fill is not used as a base. When possible, organic soil material should be removed and filled with suitable soil material to prevent subsidence and damage to road surfaces."

Map Units 31, 42

"oURB","03","This soil is poorly suited to most urban uses because of a seasonal high water table at or near the soil surface. Housing pads, driveways, and other home site areas can be elevated using suitable fill. Area drainage can be installed to lower the water table if suitable outlets are available. Fill may also be used to elevate sites for small commercial buildings. Landscaping considerations should include use of species that are adapted to wetness."

"pSEP","03","This soil has severe limitations for septic tank absorption fields. High water tables interfere with the absorption of effluent from septic tanks and pose risks of contamination to adjacent surface waters. Septic tank absorption fields can be mounded to maintain the system above the seasonal high water table."

"qLRS","03","This soil has severe limitations for local roads and streets. For any construction, care should be taken not to impede natural drainage or impound water on the site and adjacent areas. Well designed culvert placement beneath any fill and use of existing water conveying landscapes can help minimize disturbance to natural drainage."

Map Unit 6

"oURB","04","Suitability is poor for most urban uses because of a seasonal high water table within 40 inches of the soil surface, and fine textured soil material near the soil surface. House or small building pads can be elevated using suitable fill. The fill can be placed with a slight grade to allow water to drain away from the house or building. Landscaping considerations should include use of species that are adapted to wetness and fine textured soils."

"pSEP","04","This soil has severe limitations for septic tank absorption fields. High water table and fine textured soil material interfere with the absorption of effluent from septic tanks and creates a risk of contamination to adjacent surface waters and system failure. Absorption fields can be mounded or fine textured soil layers can be excavated and replaced with suitable soil material. Absorption field laterals should be installed downslope from dwellings."

"qLRS","04","This soil has severe limitations for local roads and streets. They can be elevated using suitable fill. The fill can be placed with a slight grade to allow water to drain away from the house or building. An engineer or soil scientist should be consulted to determine the shrink-swell potential of near surface soil material. Additional design precautions can be planned if shrink-swell is determined to be a concern."

Map Unit 33

"oURB","05","Suitability is poor for most urban uses because of a seasonal high water table and bedrock within 40 inches of the soil surface, fine textured soil material near the soil surface. House or small building pads can be elevated using suitable fill. The fill can be placed with a slight grade to allow water to drain away from the house or building. Landscape considerations should include use of species that are adapted to wetness, alkalinity, and fine textured soils. "

"pSEP","05","This soil has severe limitations for septic tank absorption fields. High water table, bedrock, and fine textured soil material interfere with the absorption of effluent from septic tanks and creates a risk of contamination to adjacent surface waters and system failure. Absorption fields can be mounded or fine textured soil layers can be excavated and replaced with suitable soil material. Absorption field laterals should be installed downslope from dwellings."

"qLRS","05","This soil has severe limitations for local roads and streets. They can be elevated using suitable fill. The fill can be placed with a slight grade to allow water to drain away from the house or building. An engineer or soil scientist should be consulted to determine the shrink-swell potential of near surface soil material. Additional design precautions can be planned if shrink-swell is determined to be a concern."

Map Units 7, 9, 13, 14, 16, 20, 26, 27, 36, 52

"oURB","06","Suitability is poor for most urban land uses because of a seasonal high water table within 40 inches of the soil surface. House and small building pads can be elevated using suitable fill. The fill can be placed with a slight grade to allow water to drain away from the house or building. Irrigation can be helpful in establishing plants and for maintenance during dry periods. Landscaping considerations should include use of species that are adapted to wetness."

"pSEP","06","This soil has severe limitations for septic tank absorption fields. High water tables interfere with the absorption of effluent from septic tanks. This poses risks of contamination to adjacent surface waters and system failure. Septic tank absorption fields can be mounded to maintain the system above the seasonal high water table. Absorption field laterals should be installed on a slight downslope gradient. Absorption fields should be placed downslope from dwellings."

"qLRS","06","This soil has severe limitations for local roads and streets. They can be elevated using suitable fill. The fill can be placed with a slight grade to allow water to drain away from the house or building. An engineer or soil scientist should be consulted to determine the shrink-swell potential of near surface soil material. Additional design precautions can be planned if shrink-swell is determined to be a concern."

Map Unit 48

"oURB","13","This soil is moderately suited to most urban uses because of the depth to bedrock. Irrigation can be helpful in establishing and maintaining lawns and landscaping plants."

"pSEP","13","Hard bedrock interferes with placement of the septic tank. In some areas, bedrock may be soft enough so that it can be broken and excavated with light power equipment. Where bedrock cannot be excavated, the site may be filled to accommodate the tank and absorption field. Absorption field laterals should be installed on a slight downslope gradient. Absorption fields should be placed downslope from dwellings. Irrigation can be helpful in establishing and maintaining lawns and landscaping plants."

"qLRS","13","This soil has no significant limitations important in the construction of local roads and streets."

Map Units 4, 5, 34, 53

"oURB","14","This soil is moderately suited to most urban land uses. Because of the very rapid permeability of this soil, careful selection of on-site waste disposal areas can help prevent contamination of shallow groundwater and adjacent surface waters. Irrigation, mulching, and fertilizing help establish and maintain lawns and landscaping plants."

"pSEP","14","Septic tank absorption fields should be placed away from slopes that grade down towards surface water bodies. Home site density should be decreased, especially in areas near surface water bodies. Absorption fields can be placed on contour in sloping areas, or slope can be reduced by cut and fill.

"qLRS","14","Reducing slope by cut and fill will lower erosion on home sites and areas adjacent to roads.

Map Units 10, 11, 15

"oURB","21","This soil has a low suitability for urban uses because of the low strength of the organic layers and the likelihood of subsidence if drained."

"pSEP","21","This soil has severe limitations for any on-site waste disposal system due to wetness and subsidence of the organic soil material."

"qLRS","21","This soil has severe limitations for local roads and streets due to wetness and subsidence of the organic soil material. Excavating and filling is required to assure roads function properly."

WATER QUALITY: PESTICIDE AND NUTRIENT MANAGEMENT

sWQ - Water Quality Statement
tPES - Pesticide Management Statemtent
uNUT - Nutrient Management Statement

Map Units – 2, 34, 39, 48

"sWQ","02","These soils have a medium or high potential for pesticide leaching to the groundwater and a low potential for pesticide runoff from the field(s) to surface water. They have a medium or high potential for nitrogen leaching to the groundwater and a low potential for phosphorous runoff to surface runoff."

"tPES","02","The Florida Pest Control Guide from the Cooperative Extension Service contains a list of pesticides suited to each pest. This list also contains Relative Leaching Potential Index (RLPI) values. While any approved pesticide listed in the guide can be used, the applicator should consider for use pesticides with a larger RLPI value and Health Advisory Level (HAL or HALEQ) value. Read and follow pesticide labels."

"uNUT","02","A soil test will be used as a guide to determine plant nutrient needs. In addition, a listing of nitrogen and phosphorous requirements by crop type is available from the Cooperative Extension Service. Nutrients shall be added at the rate needed by the crop grown or according to the producer's goals, whichever is lower."

Map Units – 5, 7, 9, 14, 16, 26, 27, 36, 43, 44, 52, 53, 54

"sWQ","03","These soils have a medium or high potential for pesticide leaching to groundwater and a medium to high potential for pesticide runoff to surface water. They have a medium or high potential for nitrogen leaching to the groundwater and a medium or high potential for phosphorous runoff to surface runoff."

"tPES","03","The Florida Pest Control Guide from the Cooperative Extension Service contains a list of pesticides suited to each pest. This list also contains Relative Leaching Potential Index (RLPI) and Relative Runoff Potential Index (RRPI) values. While any approved pesticide listed in the guide can be used, the applicator should consider for use pesticides with a larger RLPI value, RRPI value, Health Advisory Level (HAL or HALEQ) value, and Aquatic Toxicity value. Read and follow pesticide labels."

"uNUT","03","A soil test will be used as a guide to determine plant nutrient needs. In addition, a listing of nitrogen and phosphorous requirements by crop type is available from the Cooperative Extension Service. Nutrients shall be added at the rate needed by the crop grown or according to the producer's goals, whichever is lower."

Map Units 6, 10, 11, 13, 15, 18, 20, 24, 28, 29, 31, 32, 33, 37, 38, 41, 42, 45, 46

"sWQ","04","These soils have a low potential for pesticide leaching to groundwater and a medium or high potential for pesticide runoff to surface water. They have a medium or high potential for nitrogen leaching to groundwater and a medium or high potential for phosphorous runoff to surface runoff."

"tPES","04","The Florida Pest Control Guide from the Cooperative Extension Service contains a listing of pesticides suited to each pest. This list also contains Relative Runoff Potential Index (RRPI) values. While any approved pesticide listed in the guide can be used, the applicator should consider for use pesticides with a larger RRPI value and a larger Aquatic Toxicity value. Read and follow pesticide labels."

"uNUT","04","A soil test will be used as a guide to determine plant nutrient needs. In addition, a listing of nitrogen and phosphorous requirements by crop type is available from the Cooperative Extension Service. Nutrients shall be added at the rate needed by the crop grown, or according to the producer's goals, whichever is lower."