

Citrus 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
- gCIT - Citrus Production
- hPAS - Pasture and Hayland
- iWMG - Water Table Management

Map <u>Symbol</u>	Non hydric <u>LCU</u>	Hydric <u>LCU</u>	Drained <u>LCU</u>	Undrained <u>LCU</u>
2	3w9			
3	4s23			
4	6s3			
5		4w21		
6		7w3		
7	4w2	4w21		
8	6s5			
9	4w2	4w21		
10		7w3		

<u>Map Symbol</u>	<u>Non hydric LCU</u>	<u>Hydric LCU</u>	<u>Drained LCU</u>	<u>Undrained LCU</u>
11	3s6			
12	4w2	4w21		
13				7w1
14	4s23			
15	6s3			
16	3s4			
17	4s4			
18	2e7			
19	3e7			
20	7s8			
22	6s20			
23		8w2		
24				7w1
25	2w7			
26	2e6(Williston Part) 4s27(Pedro Part) 8s1(Rock Outcrop Part)			
27	6s8			
28	3w6			
29	6s5			
30	6s5			
31	4s5			
32	6s3(Candler Part) 8s1(Urban Land Part)			
33	2w7			
35	3w9			
36	4w3	4w22		
37	6s24(Matlacha Part) 8s1(Urban Land Part)			
38	8s1(Rock Outcrop Part)	8w2(Homosassa Part)		
39	4w6(Hallandale Part) 8s1(Rock Outcrop Part)			
40		8w2		
41	6s3			
46		4w22		
47	3s4			
48	7e1			
49				7w1
50	3w1			

<u>Map Symbol</u>	<u>Non hydric LCU</u>	<u>Hydric LCU</u>	<u>Drained LCU</u>	<u>Undrained LCU</u>
51	3w6(Boca Part) 5w2(Pineda Part)			
52		7w3		
53	3w6			
54	3s4			
55	6s25			
56	4s23			
57	3w3			
58	4w2(Myakka) 4w3(Eaugallie)	4w22		
59		7w3		
60	4w8			
61	4s22			
62		4w22		
63	3w1			
64	6s26			

ECOLOGICAL COMMUNITY

The following categories are available below.

kRNG - Rangeland Suitability
IWLD - Wildlife Suitability
mWOD - Woodland Suitability

EC 3 (Sand Pine Scrub) – Map Units 8, 29, 30

EC 4 (Longleaf Pine – Turkey Oak Hills) - Map Units 3, 4, 11, 14, 15, 16, 17, 18, 19, 32, 41, 54, 56, 61

EC 6 (South Florida Flatwoods) Map Units 2, 7, 12, 27, 28, 36, 51, 57, 58, 60, 64

EC 8 (Cabbage Palm Flatwoods) - Map Units 39, 53

EC 11 (Upland Hardwood Hammocks) – Map Units 25, 26, 33, 47, 50

EC 15 (Oak Hammocks) – Map Units 31, 35, 63

EC 18 (Salt Marsh) - Map Units 23, 38, 40

EC 21 (Swamp Hardwoods) – Map Unit 62

EC 25 (Freshwater Marsh and Ponds) - Map Units 6, 10, 13, 24, 46, 49, 52, 59

EC 26 (Slough) - Map Units 5, 9

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

- 02 - Map Units 6, 10, 46, 52
- 03 - Map Units 5, 7, 9, 12, 36, 50, 51, 53, 57, 58, 59, 62, 64
- 04 - Map Units 33, 63
- 07 - Map Unit 39
- 08 - Map Unit 31, 35
- 11 - Map Unit 26
- 12 - Map Units 3, 4, 8, 11, 14, 15, 18, 19, 25, 32, 47, 54, 56, 61
- 13 - Map Unit 60
- 14 - Map Units 2, 27, 28, 29, 30, 41
- 15 - Map Units 20, 22, 37, 48, 55
- 19 - Map Units 23, 38, 40, 49
- 20 - Map Unit 16, 17, 54
- 21 - Map Units 13, 24

pSEP - Septic Tank Absorption Fields

- 02 - Map Units 6, 10, 46, 52
- 03 - Map Units 2, 5, 7, 9, 12, 28, 36, 50, 51, 53, 57, 58, 59, 62, 64
- 04 - Map Units 31, 33, 35, 63
- 05 - Map Unit 39, 60
- 06 - Map Unit 27
- 11 - Map Unit 26
- 12 - Map Units 3, 4, 8, 11, 14, 15, 18, 19, 25, 32, 47, 54, 56, 61
- 14 - Map Units 2, 27, 28, 29, 30, 41
- 15 - Map Units 20, 22, 37, 48, 55
- 19 - Map Units 23, 38, 40, 49
- 20 - Map Unit 16, 17, 54
- 21 - Map Units 13, 24

qLRS - Local Roads and Streets

- 02 - Map Units 6, 10, 46, 52
- 03 - Map Units 5, 7, 9, 12, 26, 36, 39, 50, 51, 53, 57, 58, 59, 62, 64
- 04 - Map Units 33, 63
- 10 - Map Units 2, 27, 28, 31, 35, 60
- 12 - Map Units 3, 4, 8, 11, 14, 15, 18, 19, 25, 32, 47, 54, 56, 61
- 14 - Map Units 2, 27, 28, 29, 30, 41
- 15 - Map Units 20, 22, 37, 48, 55
- 19 - Map Units 23, 38, 40, 49
- 20 - Map Unit 16, 17, 54
- 21 - Map Units 13, 24

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 Statement
- uNUT – Nutrient Management Statement

- 01 – Map Units - 16, 17, 18, 19, 54
- 02 - Map Units – 3, 4, 8, 11, 14, 15, 20, 22, 23*, 29, 30, 31, 32, 35, 41, 47, 48, 56, 61
- 03 - Map Units – 2, 5, 6, 7, 9, 10, 12, 13, 23*, 24, 27, 28, 37, 38, 39, 40, 49, 50, 52, 55, 57, 58, 60, 64
- 04 - Map Units – 25, 26, 33, 36, 46, 51, 53, 59, 62, 63

Nontechnical Soil Descriptions

2e6 Map Unit 26(Williston Part)

"aSOI", "2e6", "This map unit consists of gently sloping, moderately well drained and well drained soils on uplands. They have sandy surface layers less than 20 inches thick, and a moderately to moderately slowly permeable, loamy or clayey subsoil layer. These soils are prime farmland."

"bSAC", "2e6", "These soils have a well aerated root zone more than 60 inches thick that is somewhat restricted by the subsoil. The available water capacity averages moderate to high in the root zone. They have moderate natural fertility and crops respond well to fertilization. Rainfall is readily absorbed on protected areas and retained by the soils. Runoff during rains is moderate on unprotected areas and the erosion hazard is moderate."

"cH2O", "2e6", "In normal years these soils have a seasonal high water table at a depth of between 60 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", "2e6", "These soils have moderate limitations for cultivated crops because of the hazard of erosion. A wide variety of cultivated crops is well-adapted. Such crops as corn, watermelon, and peanuts grow well where properly managed. Moderate erosion control measures are needed. Maximum yields require proper seedbeds. Nutrient management maximize yields."

"eERO", "2e6", "Moderate erosion control measures are needed on these soils. These include a system of well- designed terraces with stabilized outlets and contour cultivation of row crops in alternate strips with cover crops. Crop rotations are needed that include cover crops at least half 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", "2e6", "Crops produced on these soils are not normally irrigated and good yields can be achieved without irrigation but yields can be increased with irrigation. Irrigation is feasible where water is readily available."

"gCIT", "2e6", "These soils are well suited to citrus crops where they occur in places that are relatively free from freezing temperatures. A ground cover of close growing vegetation is needed on the areas between trees to protect the soil from blowing and erosion by water. Nutrient management is needed to produce highest yields. Good yields can be grown without irrigation but irrigation to improve yields is feasible in places where water is readily available."

"hPAS", "2e6", "These soils are well suited to pastures and hay crops. Pasture plants such as clovers, hybrid bermudagrass, and the improved bahiagrasses are well suited. They require nutrient management and controlled grazing to maintain vigorous plants for best yields and good cover for erosion control."

"iWMG", "2e6", "Water table management is not normally practiced on these soils."

2e7 Map Unit 18

"aSOI", "2e7", "This map unit consists of gently sloping, well drained soils on upland ridges. They have sandy surface and subsurface layers 20 to 40 inches thick, and moderately permeable loamy subsoil layers."

"bSAC", "2e7", "These soils have a well aerated root zone more than 60 inches thick. They have moderate natural fertility and crops respond well to fertilization. The available water capacity averages low to moderate. Rainfall is readily absorbed on protected areas and retained by the soils. Runoff during rains is moderate on unprotected areas and the erosion hazard is moderate."

"cH2O", "2e7", "In normal years these soils have no seasonal high water table within 72 inches."

"dCUL", "2e7", "These soils have moderate limitations for cultivated crops because of the hazard of erosion. Many crops grown in the area are moderately adapted. Such crops as corn, peanuts, and watermelons are suited where they are well managed. Moderate erosion control measures are needed. Maximum yields require good seedbed preparation and nutrient management."

"eERO", "2e7", "Erosion control measures including contour cultivation of row crops in alternate strips with cover crops are needed. Crop rotations are needed that include cover crops on the land at least half the time. Cover crops and all crop residues should be left on the land."

"fIRR", "2e7", "These soils are droughty in dry seasons and yields are often reduced by untimely droughts. Irrigation of some high value crops is feasible where irrigation water is readily available."

"gCIT", "2e7", "These soils are well suited to citrus crops where they are in places that are relatively free from freezing in winter. A good ground cover of close growing vegetation is needed between the trees to protect the soils from blowing and for water erosion. Nutrient management is needed for highest yields."

"iWMG", "2e7", "Water table management is needed for successful use of these soils for cultivated crops. Tile drains or open drainage ditches are needed for most crops. Such crops as corn and soybeans produce moderately high to high yields with this management. The crops are subject to damage from excess surface water occasionally during growing or harvesting seasons."

2w7 Map Units 25, 33

"aSOI", "2w7", "This map unit consists of nearly level, somewhat poorly drained soils on uplands. They have sandy surface layers less than 20 or more than 20 inches thick, and moderately slowly permeable subsoil layers."

"bSAC", "2w7", "A well aerated root zone is limited by a seasonal high water table in wet seasons. The available water capacity is low to moderate in the root zone. Natural fertility is low, but crops respond well to fertilization. The internal drainage rate and the response to artificial drainage is moderately slow."

"cH2O", "2w7", "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", "2w7", "These soils have moderate limitations for cultivated crops due to wetness. The variety of crops is limited to those that are tolerant of periodic wet conditions. Crop rotations should provide close growing cover crops at least half the time. Soil improving cover crops and all crop residues should be left on the ground. Other good farming practices that include good seedbed preparation and nutrient management increase yields."

"eERO", "2w7", "Erosion control is not a management concern on these soils."

"fIRR", "2w7", "Crops produced on these soils are not normally irrigated."

"gCIT", "2w7", "These soils have poor suitability for citrus crops. Soil depth and the low to very low available water capacity are severe limitations that are difficult to overcome."

"hPAS", "2w7", "These soils are moderately well suited to pastures and hay crops. Hybrid bermudagrass, improved bahiagrasses, and clovers are well adapted. They respond moderately well to nutrient management. Grazing should be controlled to maintain plant vigor for best yields and good ground cover."

"iWMG", "2w7", "Water table management is needed for successful use of these soils for cultivated crops. Tile drains or open drainage ditches are needed for most crops. Such crops as corn and soybeans produce moderately high to high yields with this management. The crops are subject to damage from excess surface water occasionally during growing or harvesting seasons."

3e7 Map Unit 19

"aSOI", "3e7", "This map unit consists of sloping, well drained soils on side slopes of upland ridges. They have sandy surface and subsurface layers 20 to 40 inches thick, and moderately permeable loamy subsoil layers."

"bSAC", "3e7", "These soils have a well aerated root zone more than 60 inches thick. They have moderate natural fertility and crops respond well to fertilization. The available water capacity averages low to moderate. Runoff during rains is rapid on unprotected areas and the hazard of erosion is severe."

"cH2O", "3e7", "In normal years these soils have no seasonal high water table within 72 inches."

"dCUL", "3e7", "These soils have severe limitations for cultivated crops because of the hazard of erosion. Many crops grown in the area are moderately adapted. Such crops as corn, peanuts, and watermelons are suited where they are well managed. Maximum yields require good seedbed preparation. Nutrient management maximizes yields."

"eERO", "3e7", "Intensive erosion control measures that include contour cultivation of row crops in alternate strips with cover crops are needed. Crop rotations are needed that include cover crops on the land at least two-thirds of the time. Cover crops and all crop residues should be left on the land."

"fIRR", "3e7", "These soils are droughty in dry seasons and yields are often reduced by untimely droughts. Irrigation of some high value crops is feasible where irrigation water is readily available."

"gCIT", "3e7", "These soils are well suited to citrus crops where they are in places that are relatively free from freezing in winter. Trees should be planted on the contour and a good ground cover of close growing vegetation is needed between the trees to protect the soils from blowing and for water erosion. Good yields of citrus fruit can normally be obtained without irrigation. Nutrient management is needed for highest yields."

"hPAS", "3e7", "These soils are well suited to pastures and hay crops. Improved pasture plants such as clovers, hybrid bermudagrass, and the improved bahiagrasses are well adapted. They produce good yields where properly managed. They require nutrient management and controlled grazing to maintain vigorous plants for highest yields and good ground cover."

"iWMG", "3e7", "Water table management is not normally practiced on these soils."

3s4 Map Units 16, 47, 54

"aSOI", "3s4", "This map unit consists of nearly level and gently sloping, well drained soils on upland ridges. The soils have sandy surface and subsurface layers 40 to 80 inches thick and loamy subsoils that have rapid to moderate permeability."

"bSAC", "3s4", "These soils have a well aerated root zone that is thicker than 80 inches. The available water capacity averages very low to low in the root zone. Natural fertility is low to moderate and crop response to fertilization is moderate. Rainfall is rapidly absorbed and there is little runoff. The hazard of erosion is slight."

"cH2O", "3s4", "In normal years these soils do not have a seasonal high water table within 72 inches."

"dCUL", "3s4", "These soils have severe limitations to cultivated crops. Droughtiness and rapid leaching of plant nutrients reduce the number of well adapted crops and the potential yields of plants that are adapted. The control of erosion is also a management concern. Nutrient management maximizes yields."

"eERO", "3s4", "Some erosion control measures are needed such as cultivating row crops on the contour in strips alternating with close growing, soil building crops. Crop rotations should include close growing, soil improving crops on the land at least two-thirds of the time. Soil improving cover crops and all crop residues should be left on the land."

"fIRR", "3s4", "Good yields of cultivated crops require irrigation: however irrigation is feasible for only a few high value crops and only where irrigation water is readily available. Where water for irrigation is readily available, increased yields of citrus crops makes irrigation feasible."

"gCIT", "3s4", "These soils are well suited to citrus crops where they are in places that are relatively free from freezing in winter. Trees should be planted so a good ground cover of close growing vegetation is maintained between the trees to protect the soils from blowing. Good yields of citrus fruit such as oranges and grapefruit can normally be obtained without irrigation. Nutrient management is needed for highest yields."

"hPAS", "3s4", "These soils are well suited to pastures and hay crops. Deep rooting hybrid bermudagrass and bahiagrasses grow well where nutrient management is practiced. These soils require light and frequent fertilizing and carefully controlled grazing to maintain vigorous plants. Production is occasionally reduced by extended droughts."

"iWMG", "3s4", "Water table management is not normally practiced on these soils."

3s6 Map Unit 11

"aSOI", "3s6", "This map unit consists of nearly level and gently sloping, somewhat poorly drained to moderately well drained soils on low ridges. They have moderately to rapidly permeable sandy layers to depths of more than 80 inches."

"bSAC", "3s6", "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 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."

"cH20", "3s6", "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", "3s6", "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."

"eERO", "3s6", "Crops produced on these soils do not normally need special erosion control practices."

"fIRR", "3s6", "Irrigation of high value crops is usually feasible where irrigation water is readily available. Fair 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", "3s6", "These soils are well suited for 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. Fair yields of citrus crops can normally be grown without irrigation. "

"hPAS", "3s6", "These soils are well suited to pastures. Pangola grass, hybrid bermudagrass, and bahiagrasses are well adapted. White clover and lespedezas 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", "3s6", "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."

3w1 Map Units 50, 63

"aSOI", "3w1", "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. These soils have limestone bedrock within depths of 40 to 80 inches."

"bSAC", "3w1", "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", "3w1", "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", "3w1", "These soils have severe limitations for cultivated crops because of wetness. With a total water management system these soils are well 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", "3w1", "Crops produced on these soils do not normally need special erosion control practices."

"gCIT", "3w1", "With proper water table management these soils are suited to citrus crops where they occur in places relatively free from damaging cold in winter. 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."

"hPAS", "3w1", "These soils are well suited to pastures and hay crops. Improved grasses such as pangola grass and 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", "3w1", "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 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."

3w3 Map Unit 57

"aSOI", "3w3", "This map unit consists of nearly level, poorly drained soils on flatwoods, hammocks, and other flat areas. They have sandy surface and subsurface layers over moderately to moderately rapidly permeable loamy or sandy subsoils. These soils have dark colored organic stained layers within 40 inches."

"bSAC", "3w3", "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 low to very low 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", "3w3", "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", "3w3", "These soils have severe limitations for cultivated crops because of wetness in wet seasons and droughtiness during periods of low rainfall. With a total water management system these soils are well suited to a variety of flower and vegetable crops. Management should include crop rotations that keep the soil in close growing cover crops at least two-thirds of the time. All crop residue should be returned to the soil. Maximum yields require nutrient management."

"eERO", "3w3", "Crops produced on these soils do not normally need special erosion control practices."

"fIRR", "3w3", "Highest yields require irrigation during periods of low rainfall. Water can be supplied through subirrigation with a water table management system or by sprinklers."

"gCIT", "3w3", "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", "3w3", "These soils are well suited to pastures and hay crops. Improved grasses such as pangola grass and 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", "3w3", "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 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."

3w6 Map Units 28, 51(Boca Part), 53

"aSOI", "3w6", "This map unit consists of nearly level and gently sloping, somewhat poorly drained to moderately well drained soils on low ridges. They have moderately to rapidly permeable sandy layers to depths of more than 80 inches."

"bSAC", "3w6", "The root zone of these soils is limited by a seasonal high water table at or near the surface and the limestone bedrock. The available water capacity is low to very low in the root zone. Natural fertility is low but crop response to fertilization is moderate. The internal drainage is slow under natural conditions but the response to artificial drainage is rapid. The hazard of erosion is slight."

"cH2O", "3w6", "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", "3w6", "These soils have severe limitations for cultivated crops because of wetness and the depth to bedrock. The variety of crops is very limited without a total water table management system that is designed to remove excess water in wet seasons and provide subirrigation during dry periods. 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", "3w6", "Erosion control is not a management concern on these soils."

"fIRR", "3w6", "If cultivated, highest yields require irrigation during periods of low rainfall. Water can be supplied through subirrigation with a water table management system or by sprinklers."

"gCIT", "3w6", "These soils have poor suitability for citrus crops. Soil depth and the low to very low available water capacity are severe limitations that are difficult to overcome."

"hPAS", "3w6", "These soils are only fairly suited to pastures and hay crops. Low to very low available water capacity is the main limitation. Improved grasses such as the improved bahiagrasses are adapted. Several varieties of clovers are also well adapted where properly managed. Moderate yields require nutrient management, water table management, and controlled grazing to prevent overgrazing."

"iWMG", "3w6", "If cropped, these 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 for the planted crop. 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 Units 2, 35

"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."

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

"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", "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 low to very low in the root zone. Natural fertility is low but crop response to fertilization is good. Internal drainage management, and controlled grazing to prevent overgrazing."

"iWMG", "3w9", "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 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."

4s4 Map Unit 17

"aSOI", "4s4", "This map unit consists of nearly level and gently sloping, well drained soils on side slopes of upland ridges. The soils have sandy surface and subsurface layers 40 to 80 inches thick and loamy subsoils that have rapid to moderate permeability."

"bSAC", "4s4", "These soils have a well aerated root zone that is thicker than 80 inches. The available water capacity averages very low to low in the root zone. Natural fertility is low to moderate and crop response to fertilization is moderate. Rainfall is rapidly absorbed and there is little runoff. The hazard of erosion is moderate."

"cH2O", "4s4", "In normal years these soils do not have a seasonal high water table within 72 inches."

"dCUL", "4s4", "These soils have very severe limitations to cultivated crops. Droughtiness, erosion, and rapid leaching of plant nutrients reduce the number of well adapted crops and the potential yields of plants that are adapted. The control of erosion is management concern. Nutrient management maximizes yields."

"eERO", "4s4", "Moderate erosion control measures are needed such as cultivating row crops on the contour in strips alternating with close growing, soil building crops. Crop rotations should include close growing, soil improving crops on the land at least three-fourths of the time. Soil improving cover crops and all crop residues should be left on the land."

"fIRR", "4s4", "Good yields of cultivated crops require irrigation: however irrigation is feasible for only a few high value crops and only where irrigation water is readily available. Where water for irrigation is readily available, increased yields of citrus crops makes irrigation feasible. The rate of water application should be low enough to prevent runoff and erosion."

"gCIT", "4s4", "These soils are well suited to citrus crops where they are in places that are relatively free from freezing in winter. Trees should be planted so a good ground cover of close growing vegetation is maintained between the trees to protect the soils from blowing. Good yields of citrus fruit such as oranges and grapefruit can normally be obtained without irrigation. Nutrient management is needed for highest yields."

"hPAS", "4s4", "These soils are moderately well suited to pastures and hay crops. Deep rooting hybrid bermudagrass and bahiagrasses grow well where nutrient management is practiced. These soils require nutrient management that includes light and frequent fertilizing as well as carefully controlled grazing to maintain vigorous plants. Production is occasionally reduced by extended droughts."

"iWMG", "4s4", "Water table management is not normally practiced on these soils."

4s5 Map Unit 31

"aSOI", "4s5", "This map unit consists of sloping, somewhat poorly drained soils on side slopes of broad low ridges. They have sandy layers that are rapidly permeable to depths of more than 80 inches."

"bSAC", "4s5", "The root zone of these soils is limited by a seasonal high water table in wet seasons and droughtiness during periods of low rainfall. The available water capacity is low to very low in all layers. Natural fertility is low and response to fertilization is moderate to low. Rainfall is rapidly absorbed and there is little runoff. The hazard of erosion is moderate."

"cH2O", "4s5", "In normal years these soils have a seasonal high water table at a depth of between 18 and 30 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", "4s5", "These soils have severe limitations for cultivated crops. Droughtiness during periods of low rainfall, wetness in wet seasons, and the rapid leaching of plant nutrients limit the choice of plants and reduces potential yields of adapted crops. Erosion control measures are needed. Nutrient management maximizes yields."

"eERO", "4s5", "Erosion control measures are needed. These should include cultivation of row crops on the contour in alternate strips with close growing crops. Crop rotations should include close growing crops on the land at least three-fourths of the time. Terraces may create gully erosion problems. Soil improving cover crops and all crop residues should be left on the land."

"gCIT", "4s5", "These soils are well suited to citrus crops where they are in places that are relatively free from freezing in winter. Trees should be planted so a good ground cover of close growing vegetation is maintained between the trees to protect the soils from blowing. Good yields of citrus fruit such as oranges and grapefruit can normally be obtained without irrigation. Nutrient management is needed for highest yields."

"hPAS", "4s5", "These soils are moderately well suited to pastures and hay crops. Deep rooting hybrid bermudagrass and bahiagrasses grow well where nutrient management is practiced. These soils require nutrient management that includes light and frequent fertilizing as well as carefully controlled grazing to maintain vigorous plants. Production is occasionally reduced by extended droughts."

"iWMG", "4s5", "Water table management is not normally practiced on cultivated crops grown on these soils. However, 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. Bedding also elevated crops above the water table. Tiles can also be used as a source for subirrigation during periods of low rainfall."

4s22 Map Unit 61

"aSOI", "4s22", "This map unit consists of nearly level and gently sloping, moderately well drained soils on coastal ridges. These soils have sandy layers that are rapidly permeable to depths of more than 80 inches."

"bSAC", "4s22", "The root zone of these soils is limited by a seasonal high water table in wet seasons as well as droughtiness during periods of low rainfall. The available water capacity is low to very low in all layers. Natural fertility is low and response to fertilization is moderate to low. Rainfall is rapidly absorbed and there is little runoff. The hazard of erosion is slight."

"cH2O", "4s22", "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", "4s22", "These soils have severe limitations for cultivated crops. Droughtiness and the rapid leaching of plant nutrients limit the choice of plants and reduces potential yields of adapted crops. If cropped, soil management should include row crops on the contour in alternate strips with close growing crops. Crop rotations should include close growing crops on the land at least two-thirds of the time. Nutrient management maximize yields. Soil improving cover crops and all crop residues should be left on the land."

"eERO", "4s22", "Crops produced on these soils do not normally need special erosion control practices."

"fIRR", "4s22", "Irrigation of high value crops is usually feasible where irrigation water is readily available."

"gCIT", "4s22", "These soils are suited to citrus crops where they are in places that are relatively free from freezing in winter. Trees should be planted on the contour and managed so that a good ground cover of close growing vegetation is maintained between the trees to protect the soils from blowing. Good yields of citrus fruit such as oranges and grapefruit can normally be obtained without irrigation. Nutrient management is needed for highest yields."

"hPAS", "4s22", "These soils are poorly suited to pastures and hay. These soils require nutrient management and controlled grazing to maintain vigorous plants for acceptable yields."

"iWMG", "4s22", "Water table management is not normally practiced on these soils."

4s23 Map Units 3, 14, 56

"aSOI", "4s23", "This map unit consists of nearly level and gently sloping, well drained to excessively drained soils on broad ridges. They have rapidly permeable sandy layers to depths of 80 inches or more."

"bSAC", "4s23", "The root zone of these soils is limited by droughtiness. The available water capacity is low to very low in the root zone. Natural fertility is low and the response to fertilization is low to moderate. Rainfall is rapidly absorbed and there is little runoff. The hazard of erosion is slight."

"cH2O", "4s23", "In normal years these soils do not have a seasonal high water table within a depth of 80 inches."

"dCUL", "4s23", "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 three-fourths of the time. Nutrient management maximizes yields. Soil improving cover crops and all crop residues should be left on the ground."

"eERO", "4s23", "Crops produced on these soils do not normally need special erosion control practices."

"fIRR", "4s23", "Irrigation of high value crops is usually feasible where irrigation water is readily available. Good yields of citrus crops are rarely produced without irrigation, and irrigation to maintain optimum yields is usually feasible where irrigation water is readily available."

"gCIT", "4s23", "These soils are moderately well suited for 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 are rarely produced without irrigation."

"hPAS", "4s23", "These soils are moderately suited to pastures. Pangola grass, hybrid bermudagrass, and bahiagrasses are adapted. These soils produce acceptable yields where nutrient management and controlled grazing are practiced."

"iWMG", "4s23", "Water table management is not normally practiced on these soils."

4s27 26(Pedro Part)

"aSOI", "4s27", "This map unit consists of nearly level to gently sloping well drained soils on low ridges. They have sandy surface and subsurface layers over loamy subsoils with rock at 20 inches or less."

"bSAC", "4s27", "These soils have well aerated root zones above the rock. The available water capacity averages low in the root zone. Rainfall is readily absorbed and there is little runoff. The hazard of erosion is moderate."

"cH2O", "4s27", "In normal years these soils have no seasonal high water table within 72 inches."

"dCUL", "4s27", "These soils have severe limitations for cultivated crops due to droughtiness and the depth to bedrock. Droughtiness and the rapid leaching of plant nutrients limit the choice of crops and the potential yields of adapted crops. The hazard of erosion is moderate. Yields can be maximized with nutrient management."

"eERO", "4s27", "Intensive erosion control measure are needed. They should consist of contour cultivation and bedding of row crops, alternating strips of row crops with cover crops, and crop rotations that maintain cover crops on the soil at least three-fourth of the time."

"hPAS", "4s27", "These soils are well suited to pastures and hay crops. Improved grasses such as hybrid bermudagrass, and bahiagrasses are well adapted. Several varieties of clovers are also well adapted where properly managed. High yields require nutrient management and controlled grazing to prevent overgrazing."

"iWMG", "4s27", "Water table management is not normally practiced on these soils."

4w2 Non-hydric phases of Map Units 7, 9, 12, 58(Myakka Part)

"aSOI", "4w2", "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."

"bSAC", "4w2", "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 low in the root zone. Natural fertility is low but crop response to fertilization is moderate. Internal drainage is slow but response to artificial drainage is moderate to rapid. The hazard of erosion is slight."

"cH2O", "4w2", "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", "4w2", "These soils have severe limitations for cultivated crops because of wetness. With a total water management system these soils are well 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", "4w2", "Crops produced on these soils do not normally need special erosion control practices."

"fIRR", "4w2", "Highest yields require irrigation during periods of low rainfall either subirrigated through a water table management system or by sprinklers."

"gCIT", "4w2", "With proper water table management these soils are suited to citrus crops where they occur in places relatively free from damaging cold in winter. 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."

"hPAS", "4w2", "These soils are well suited to pastures and hay crops. Improved grasses such as pangola grass and 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", "4w2", "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 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."

4w3 Map Units 36, 58(Eaugallie Part)

"aSOI", "4w3", "This map unit consists of nearly level, poorly drained soils on flatwoods, hammocks, and other flat areas. They are dominately sandy with a moderately slowly subsoil layer within 60 inches."

"bSAC", "4w3", "The root zone is limited by a seasonal high water table that comes to near the surface in wet seasons and by droughtiness during periods of low rainfall. The available water capacity averages low to very low in the root zone. Natural fertility is low and crop response to fertilization is moderate. Internal drainage is slow but response to artificial drainage is moderate to rapid. The hazard of erosion is slight."

"cH2O", "4w3", "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", "4w3", "These soils have severe limitations for cultivated crops because of wetness in wet seasons and droughtiness during periods of low rainfall. With a total water management system these soils are well suited to a variety of flower and vegetable crops. Management should include crop rotations that keep the soil in close growing cover crops at least two-thirds of the time. All crop residue should be returned to the soil. Maximum yields require nutrient management."

"eERO", "4w3", "Erosion control is not a management concern on these soils."

"fIRR", "4w3", "Highest yields require irrigation during periods of low rainfall either subirrigated through a water table management system or by sprinklers."

"gCIT", "4w3", "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", "4w3", "These soils are well suited to pastures and hay crops. Improved grasses such as pangola grass and 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", "4w3", "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 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."

4w6 Map Unit 39(Hallandale Part)

"aSOI", "4w6", "This map unit consists of nearly level poorly drained soils on flatwoods, hammocks, and upland hardwood hammocks. They have sandy surface and subsurface layers and loamy subsoils over limestone bedrock at a depth of less than 20 inches."

"bSAC", "4w6", "The root zone of these soils is limited by a seasonal high water table at or near the surface and the limestone bedrock. The available water capacity is low to very low in the root zone. Natural fertility is low and crop response to nutrients is low to moderate. The internal drainage is slow under natural conditions but the response to artificial drainage is rapid. The hazard of erosion is slight."

"cH2O", "4w6", "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", "4w6", "These soils have severe limitations for cultivated crops because of wetness and the depth to bedrock. The variety of crops is very limited without an adequate total water table management system that designed to remove excess water in wet seasons and provide subirrigation during dry periods. 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", "4w6", "Crops produced on these soils do not normally need special erosion control practices."

"fIRR", "4w6", "If cultivated, highest yields require irrigation during periods of low rainfall either subirrigated through a water table management system or by sprinklers."

"hPAS", "4w6", "These soils are only fairly suited to pastures and hay crops. Low to very low available water capacity is the main limitation. Improved grasses such as the improved bahiagrasses are adapted. Several varieties of clovers are also well adapted where properly managed. Moderate yields require nutrient management, water table management, and controlled grazing to prevent overgrazing."

"iWMG", "4w6", "If cropped, these 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 for the planted crop. To obtain adequate drainage, the spacing of tile drains is important. Tile drains may be used for subirrigation during periods of low rainfall."

4w8 Map Unit 60

"aSOI", "4w8", "This map unit consists of nearly level poorly drained soils on flatwoods, hammocks, and upland hardwood hammocks. They have sandy surface and subsurface layers and loamy subsoils over limestone bedrock at a depth of 20 to 40 inches."

"bSAC", "4w8", "The root zone of these soils is limited by a seasonal high water table at or near the surface and the limestone bedrock. The available water capacity is low to very low in the root zone. Natural fertility is low and crop response to nutrients is low to moderate. The internal drainage is slow under natural conditions but the response to artificial drainage is rapid. The hazard of erosion is slight."

"cH2O", "4w8", "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", "4w8", "These soils have severe limitations for cultivated crops because of wetness and the depth to bedrock. The variety of crops is very limited without an adequate total water table management system that designed to remove excess water in wet seasons and provide subirrigation during dry periods. 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", "4w8", "Crops produced on these soils do not normally need special erosion control practices."

"fIRR", "4w8", "If cultivated, highest yields require irrigation during periods of low rainfall either subirrigated through a water table management system or by sprinklers."

"gCIT", "4w8", "These soils have poor suitability for citrus crops. Soil depth and the low to very low available water capacity are severe limitations that are difficult to overcome."

"hPAS", "4w8", "These soils are only fairly suited to pastures and hay crops. Low to very low available water capacity is the main limitation. Improved grasses such as the improved bahiagrasses are adapted. Several varieties of clovers are also well adapted where properly managed. Moderate yields require nutrient management, water table management, and controlled grazing to prevent overgrazing."

"iWMG", "4w8", "If cropped, these 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 for the planted crop. To obtain adequate drainage, the spacing of tile drains is important. Tile drains may be used for subirrigation during periods of low rainfall."

4w21 Hydric phases of Map Unit 5, 7, 9, 12

"aSOI", "4w21", "This map unit consists of nearly level, poorly drained soils on low flatwoods, low hammocks, and sloughs. They have sandy layers more than 72 inches thick and a spodic horizon within 30 inches."

"bSAC", "4w21", "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", "4w21", "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", "4w21", "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", "4w21", "Crops produced on these hydric soils do not normally need special erosion control practices."

"fIRR", "4w21", "Highest yields require irrigation during periods of low rainfall either subirrigated through a water table management system or by sprinklers."

"gCIT", "4w21", "With proper water table management these soils are suited to citrus crops where they occur in places relatively free from damaging cold in winter. Good management includes adequate water control to maintain the water table at least three feet below the surface. Nutrient management is a preferred practice. Close growing vegetation between the trees is needed to protect the soil from erosion."

"hPAS", "4w21", "These hydric soils are well suited to pastures and hay crops. Improved grasses such as pangola grass and 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", "4w21", "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."

4w22 Hydric phases of Map Unit 36, 46, 58(Eaugallie), 62

"aSOI", "4w22", "This map unit consists of nearly level, poorly drained soils on low flatwoods, low hammocks, and sloughs. They are dominantly sandy with a moderately slowly subsoil layer within 60 inches."

"bSAC", "4w22", "The root zone is limited by a seasonal high water table that is at or near the surface in wet seasons and by droughtiness during periods of low rainfall. The available water capacity averages low to very low in the root zone. Natural fertility is low and crop response to fertilization is moderate. Internal drainage is slow but response to artificial drainage is moderate to rapid. The hazard of erosion is slight."

"cH2O", "4w22", "In normal years these hydric soils have a seasonal high water table at a depth of less than 6 inches for 2 to 6 months. In other months the water table is usually below these depths. During periods of high rainfall the water table may be above the surface for periods of brief duration."

"dCUL", "4w22", "Cultivation of these hydric soils is not recommended. If cultivated, severe limitations due to wetness in wet seasons and droughtiness during periods of low rainfall exist. With a total water management system these soils are suited to a variety of flower and vegetable crops. Management should include crop rotations that keep the soil in close growing cover crops at least two-thirds of the time. All crop residue should be returned to the soil. Maximum yields require nutrient management."

"eERO", "4w22", "Crops produced on these hydric soils do not normally need special erosion control practices."

"fIRR", "4w22", "Highest yields require irrigation during periods of low rainfall either subirrigated through a water table management system or by sprinklers."

"gCIT", "4w22", "With proper water table management these hydric 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", "4w22", "These hydric soils are well suited to pastures and hay crops. Improved grasses such as pangola grass and 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", "4w22", "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 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."

5w2 Map Unit 51(Pineda 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."

6s3 Map Units 4, 15, 32(Candler Part), 41

"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. Good yields of citrus crops are rarely produced without irrigation, and irrigation to maintain optimum yields is usually feasible where irrigation water is readily available."

"gCIT", "6s3", "These soils are suited to citrus trees where they are in places relatively free from freezing temperatures. A good ground cover of close growing plants is needed between the trees to protect the soil from blowing and washing. Good yields of oranges and grapefruit can be obtained some years without irrigation."

"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."

6s5 Map Units 8, 29, 30

"aSOI", "6s5", "This map unit consists of well to excessively drained, nearly level to sloping soils on ridges along the coast and inland. They have sandy layers to depths of more than 80 inches."

"bSAC", "6s5", "The soils have a loose, well aerated root zone to depths of more than 80 inches. The available water capacity averages very low in the root zone. Natural fertility is very low and nutrients are rapidly leached from the soil. Rainfall is rapidly absorbed on protected areas, and there is little runoff. Erosion is not a serious hazard."

"cH2O", "6s5", "In normal years these soils do not have a seasonal high water table within a depth of 72 inches."

"dCUL", "6s5", "Due to the very low natural fertility, droughtiness, and the rapid leaching of plant nutrients, these soils are not suited to cultivated field crops."

"eERO", "6s5", "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", "6s5", "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 acceptable citrus yields."

"gCIT", "6s5", "These soils are fairly suited to citrus trees even where they are in places relatively free from freezing temperatures. A good ground cover of close growing plants is needed between the trees to protect the soil from blowing and washing. Poor to fair yields of oranges and grapefruit are usually obtained without irrigation."

"hPAS", "6s5", "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", "6s5", "Water table management is not normally practiced on these soils."

6s8 Map Unit 27

"aSOI", "6s8", "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", "6s8", "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", "6s8", "In normal years these soils have a seasonal high water table at a depth of 18 and 40 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", "6s8", "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", "6s8", "Crops produced on these soils do not normally need special erosion control practices."

"fIRR", "6s8", "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 acceptable citrus yields."

"gCIT", "6s8", "These soils are only fairly to poorly suited for citrus trees even where they are in places relatively free from freezing temperatures. A good ground cover of close growing plants is needed between the trees to protect the soil from blowing and washing. Poor to fair yields of oranges and grapefruit are usually obtained without irrigation."

"hPAS", "6s8", "These soils have only fair suitability for pastures. Grasses such as pangola grass and bahiagrass make only fair growth where an intensive nutrient management system is maintained. Clovers are not adapted."

"iWMG", "6s8", "Water table management is not normally practiced on these soils."

6s20 Map Unit 22

"aSOI", "6s20", "This map unit consists of soils on disturbed areas. They have sandy layers more than 80 inches deep with a variable water table."

"bSAC", "6s20", "The soils have a loose, well aerated root zone to depths of more than 80 inches. The available water capacity averages very low in the root zone. Natural fertility is very low and nutrients are rapidly leached from the soil. Rainfall is rapidly absorbed on protected areas, and there is little runoff. Erosion is not a serious hazard."

"dCUL", "6s20", "Due to the very low natural fertility, droughtiness, and the rapid leaching of plant nutrients, these soils are not suited to cultivated field crops."

"eERO", "6s20", "If these soils are cultivated, erosion control measures are not normally needed."

"fIRR", "6s20", "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 acceptable citrus yields."

"gCIT", "6s20", "These soils are fairly suited to citrus trees even where they are in places relatively free from freezing temperatures. A good ground cover of close growing plants is needed between the trees to protect the soil from blowing and washing. Poor to fair yields of oranges and grapefruit are usually obtained without irrigation."

"hPAS", "6s20", "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", "6s20", "Water table management is not normally practiced on these soils."

6s24 Map Unit 37(Matlacha Part)

"aSOI", "6s24", "This map unit consists of nearly level some what poorly drained soils by fill material by earth-moving operations."

"bSAC", "6s24", "This soil is not normally used for agricultural operations."

"cH2O", "6s24", "In normal years these soils have a seasonal high water table at a depth of between 2 and 3 feet for 1 to 3 months annually."

"dCUL", "6s24", "Due to the gravelly nature of this soil these soils are not suited to cultivated crops."

"eERO", "6s24", "Due to the lack of these soils being cultivated, erosion control, is not a management concern."

"fIRR", "6s24", "Due to lack of cultivation, irrigation is not a normal practice on these soils."

"hPAS", "6s24", " Due to the gravelly nature of this soil these soils are not suited to hay and pasture."

"iWMG", "6s24", "When used for sanitary facilities water table control is needed."

6s25 Map Unit 55

"aSOI", "6s25", "This map unit consists of nearly level to steep soils on areas used as dikes for water control. The soil materials are from adjacent canals and are variable; however, they are deep and predominately stratified sandy and limestone material."

"bSAC", "6s25", "This soil is not normalily used for agricultural operations."

"cH2O", "6s25", "In normal years these soils do not have a seasonal high water table within 72 inches of the surface."

"dCUL", "6s25", "These soils are too steep and erodible to be suited to cultivated crops."

"eERO", "6s25", "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", "6s25", "Due to the lack of cultivation, irrigation is not a normal practice on these soils."

"hPAS", "6s25", "These soils are poorly suited to pastures due to steepness of the soil and the hazard of erosion."

"iWMG", "6s25", "Water table management is not a normal practice on these soils because of the lack of cultivation."

6s26 Map Unit 64

"aSOI", "6s26", "This map unit consists of nearly level and somewhat poorly drained. Limestone bedrock is at a depth of 20 inches or less."

"bSAC", "6s26", "These soil is not suited to most cultivated crops due to depth to bedrock."

"cH2O", "6s26", "In normal years these soils have a seasonal high water table at a depth within 2 to 3 feet in the surface for periods of up to 4 months."

"dCUL", "6s26", "Due to droughtiness, rapid leaching of plant nutrients, thin rooting zone, and shallow depth to rock, these soils are not suited to cultivated field crops."

"eERO", "6s26", "If these soils are cultivated, erosion control measures are not normally needed."

"fIRR", "6s26", "Due to the lack of cultivation, irrigation is not a normal practice."

"hPAS", "6s26", "These soils are moderately suited to improved pasture."

"iWMG", "6s26", "Water table management is not normally practiced on these soils due to the lack of cultivation."

7e1 Map Unit 48

"aSOI", "7e1", "This map unit consists of moderately steep to steep soils on side slopes of upland ridges. The soils have less than 20 inches of sandy or loamy surface layers over loamy or clayey subsoils. In places where protective cover has been removed, the soils have eroded severely and contain many rills and gullies. Vegetation often hides these rills and gullies. Limestone boulders may outcrop in some places."

"bSAC", "7e1", "The root zone of these soils is deep or moderately deep and well aerated. The available water capacity is moderate within the root zone and natural fertility is low to moderate. The hazard of erosion is very severe on unprotected areas."

"cH2O", "7e1", "In normal years these soils do not have a seasonal high water table within 72 inches of the surface."

"dCUL", "7e1", "These soils are too steep and erodible to be suited to cultivated crops."

"eERO", "7e1", "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", "7e1", "Due to the lack of cultivation, irrigation is not a normal practice on these soils."

"hPAS", "7e1", "These soils are poorly suited to pastures due to steepness of the soil and the hazard of erosion."

"iWMG", "7e1", "Water table management is not a normal practice on these soils because of the lack of cultivation and an available water source."

7s8 Map Unit 20

"aSOI", "7s8", "This map unit consists of nearly level to steep soils on disturbed areas. These soils are variable; however, they are deep and predominately stratified sandy and loamy material."

"bSAC", "7s8", "The available water capacity is low. Natural fertility is low and response to fertilization is low. Rainfall is rapidly absorbed but moves rapidly through the soil and very little is retained. There is severe hazard of gully erosion."

"cH20", "7s8", "In normal years these soils do not have a seasonal high water table within 72 inches of the surface."

"dCUL", "7s8", "These soils are too steep and erodible to be suited to cultivated crops."

"eERO", "7s8", "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", "7s8", "Due to the lack of cultivation, irrigation is not a normal practice on these soils."

"hPAS", "7s8", "These soils are poorly suited to pastures due to steepness of the soil and the hazard of erosion."

"iWMG", "7s8", "Water table management is not a normal practice on these soils because of the lack of cultivation and an available water source. "

7w1 Map Unit 13, 24, 49

"aSOI", "7w1", "This map unit consists of nearly level, very poorly drained organic soils in depressional areas and floodplains. They have thick layers of partially decomposed remains of aquatic plants."

"bSAC", "7w1", "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", "7w1", "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", "7w1", "If water control measures are established, these soil would be moderately well to well suited to cultivated crops. Due to the difficulty of installing these measures and the lack of outlets in most areas, they have seldom, if ever, been used for crops."

"eERO", "7w1", "Due to the lack of these soils being cultivated, erosion control is not a management concern."

"fIRR", "7w1", "Due to the lack of cultivation, irrigation is not a normal practice on these soils."

"hPAS", "7w1", "If water control measures are established, these soil would be moderately well to 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", "7w1", "Water table management is not a normal practice on these soils because of the lack of cultivation."

7w3 Map Units 6, 10, 52, 59

"aSOI", "7w3", "This map unit consists of nearly level, very poorly drained soils on depressions. They have sandy or loamy surface layers and sandy, loamy or clayey subsoil layers."

"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."

8s1 Map Units 26(Rock Outcrop Part), 32(Urban Land Part), 37(Urban Land Part), 38(Rock Outcrop Part), 39(Rock Outcrop Part)

"aSOI", "8s1", "This map unit consists of miscellaneous areas where no soil exists and has no value for agricultural uses."

"bSAC", "8s1", "Due to an impervious surface these areas are not vegetated."

"cH2O", "8s1", "These soils have a highly variable water table."

"dCUL", "8s1", "Due to the impervious surface, these soils are not suited to cultivated crops."

"eERO", "8s1", "Due to the lack of these soils being cultivated, erosion control is not a management concern."

"fIRR", "8s1", "Due to the lack of cultivation, irrigation is not a normal practice on these soils."

"hPAS", "8s1", "Due to the impervious surface, actions, these soils are not suited to hay and pasture."

"iWMG", "8s1", "Water table management is not a normal practice on these soils because of the lack of cultivation."

8w2 Map Unit 23, 38(Homosassa Part), 40

"aSOI", "8w2", "This map unit consists of nearly level, very poorly drained soils of the tidal marshes."

"bSAC", "8w2", "The variety of plants growing on these soils is limited to those that are tolerant of extreme wetness and saline conditions."

"cH2O", "8w2", "In normal years these soils have a seasonal high water table at the surface throughout the year. These soils are also subject to daily tidal flooding. Only rarely is the water table below the surface for an extended period."

"dCUL", "8w2", "Due to extreme wetness and salinity, these soils are not suited to cultivated crops."

"eERO", "8w2", "Due to the lack of these soils being cultivated, erosion control is not a management concern."

"fIRR", "8w2", "Due to the lack of cultivation, irrigation is not a normal practice on these soils."

"hPAS", "8w2", "Due to extreme wetness and salinity, these soils are not suited to hay and pasture."

"iWMG", "8w2", "Water table management is not a normal practice on these soils because of the lack of cultivation."

ECOLOGICAL COMMUNITIES

kRNG – Rangeland

IWLD – Wildlife

mWOD – Woodland

Sand Pine Scrub – Map Units 8, 29, 30

"kRNG", "03", "This Sand Scrub range site supports a dense stand of trees and shrubs and has limited potential for producing native forage. Sites in excellent condition produce 1500 to 3500 pounds per acre annually. Fifteen to 40 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."

"IWLD", "03", "This Sand Scrub site is suited to deer and turkey, especially as escape cover. Many birds inhabit the area including warblers, towhees, 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", "03", "This Sand Scrub site has a low potential for commercial production of wood and timber. The soils create severe equipment limitations and moderate seedling mortality problems. Sand pine is a commercial species suited to planting. It has a potential annual growth of approximately 0.4 to 0.5 cords per acre."

Longleaf Pine – Turkey Oak Hills - Map Units 3, 4, 11, 14, 15, 16, 17, 18, 19, 32, 41, 54, 56, 61

"kRNG", "04", "Range plant production is very low on this soil. The plant community consists of a dense woody understory, which is seldom grazed by livestock. The dominant forage is pineland threeawn. This soil is in the Sand Pine Scrub range site."

"IWLD", "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, towhees, flycatchers, 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."

South Florida Flatwoods – Map Units: 2, 7, 12, 27, 28, 36, 51, 57, 58, 60, 64

"kRNG", "06", "This South Florida Flatwoods range site has the potential for producing significant amounts of high quality forage from creeping bluestem, chalky bluestem, and indiagrass. Sites in excellent condition produce 3000 to 6000 pounds per acre annually. Three to 16 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."

"IWLD", "06", "This South Florida Flatwoods site is well suited to deer, turkey, and quail. It is fairly suited to squirrels and well suited to many songbirds. Palmetto fruit, pine mast, oak acorns, legume seed, and grasses are good sources of wildlife food. Mature hardwoods and snags provide good nesting sites for birds. This site is also well suited to bobcat, raccoons, opossums, and skunks. It is poorly suited to dove."

"mWOD", "06", "This South Florida Flatwoods site has a moderate potential for commercial production of wood and timber. The soils create moderate equipment limitations and moderate seedling mortality rates. Commercial species suited to planting and their potentially annual growth in cords are as follows: Slash pine, 0.9 to 0.7. Longleaf pine, 0.5 to 0.4."

Cabbage Palm Flatwoods - Map Units 39, 53

"kRNG", "08", "This Swamp Hardwoods site has little or no range value."

"IWLD", "08", "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", "08", "This Oak Hammock site has a moderately high to high potential for commercial production of wood and timber. The soils create moderate equipment limitations and moderate seedling mortality rates. Commercial species suited to planting and their potential annual growth in cords are as follows: Slash pine, 1.5 to 1.3. Loblolly pine, 1.2 to 1.0. Sweetgum, 1.5 to 1.3. Sycamore, 0.8 to 0.6."

Upland Hardwood Hammocks – Map Units 25, 26, 33, 47, 50

"kRNG", "11", "This Wetlands Hardwood Hammock site is sometimes used for woodland grazing but it has little or no range value."

"IWLD", "11", "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", "11", "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."

Oak Hammocks – Map Units 31, 35, 63

"kRNG", "15", "This Oak Hammock range site has a low potential for producing forage due to a dense canopy of and hardwoods. It provides livestock protection in cold and hot weather. Sites in excellent condition produce 2000 to 3500 pounds per acre each year. Twelve to 3 acres or more per animal unit are needed. If the tree canopy cover exceeds 60%, little forage will be available. The annual forage produced is 40% grasses and grass-like plants, 40% trees and shrubs, and 20% herbaceous plants."

"IWLD", "15", "This Oak Hammock site is well suited to deer, turkey, squirrel, black bear, 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 and opossums; poor for quail and dove; fair for reptiles; and poor for most amphibians."

"mWOD", "15", "This Oak Hammock site has a moderately high to high potential for commercial production of wood and timber. The soils create moderate equipment limitations and moderate seedling mortality rates. Commercial species suited to planting and their potential annual growth in cords are as follows: Slash pine, 1.5 to 1.3. Loblolly pine, 1.2 to 1.0. Sweetgum, 1.5 to 1.3. Sycamore, 0.8 to 0.6."

Salt Marsh - Map Units 23, 38, 40

"kRNG", "18", "This Salt Marsh range site has the potential for producing significant amounts of high quality forage from cordgrasses, saltgrasses, and other grasses and forbs. Sites in excellent condition produce 4000 to 8000 pounds per acre annually. Three to 15 acres or more are usually needed per animal unit. Poor trafficability is a hazard. Forage is usually 90% grasses and grass-like plants, 5% trees and shrubs, and 5% herbaceous plants and vines."

"IWLD", "18", "This Salt Marsh site is well suited to a variety of wildlife including otter, raccoons, pelicans, alligators, coots, and many waterfowl. Species suitability depends upon salinity which varies seasonally and by management style. Dikes can be used to maintain a saline wildlife population or a fresh water population. Prescribed burning can also be used to improve forage value."

"mWOD", "18", "This Salt Marsh site is unsuited to the commercial production of wood and timber."

Swamp Hardwoods – Map Unit 62

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

"IWLD", "21", "This Swamp Hardwoods site is well suited to a wide variety of waterfowl, reptiles, amphibians, and mammals. These species must withstand periodic flooding. Inhabitants include squirrels, deer, mink, otter, raccoons, chickadees, titmice, flycatchers, owls, ducks, woodpeckers, wrens, and many other birds. Hardwood vegetation provides good cover and wildlife food for these and many other wildlife species."

"mWOD", "21", "This Swamp Hardwoods site is generally not used for the commercial production of wood and timber; however, it does have potential. The soils create severe equipment limitations and severe seedling mortality rates. Commercial species suited to planting in areas with adequate surface drainage and their potential annual growth in cords are as follows: Slash pine, 1.5 to 1.3. Loblolly pine, 1.2 to 1.0. Cottonwood, 0.8 to 0.6. Sweetgum and sycamore are additional species suitable to plant."

Freshwater Marsh and Ponds - Map Units 6, 10, 13, 24, 46, 49, 52, 59

"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."

"IWLD", "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."

Slough - Map Units 5, 9

"kRNG", "26", "This Slough range site has the potential for producing significant amounts of high quality forage from a variety of high quality forage plants such as maidencanes, bluestems, and panicums. Sites in excellent condition produce 3000 to 6000 pounds per acre annually. Four to 16 acres or more are usually needed per animal unit. Forage is usually 85% grasses and grass-like plants and 15% herbaceous plants."

"IWLD", "26", "This Slough site is well suited to snakes, frogs, salamanders, raccoons, and wading birds. The grass dominated vegetation is a highly valued food source for quail and deer; however, it provides poor cover for these and most other wildlife species except a its confluence with other communities."

"mWOD", "26", "This Slough 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 6, 10, 46, 52

"oURB", "02", "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."

Map Units 6, 10, 46, 52

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

Map Units 6, 10, 46, 52

"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 5, 7, 9, 12, 36, 50, 51, 53, 57, 58, 59, 62, 64

"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."

Map Units 2, 5, 7, 9, 12, 28, 36, 50, 51, 53, 57, 58, 59, 62, 64

"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."

Map Units 5, 7, 9, 12, 26, 36, 39, 50, 51, 53, 57, 58, 59, 62, 64

"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 Units 33, 63

"oURB", "04", "This soil is well suited to most urban uses. There are no significant limitations. Landscaping considerations should include use of species that are adapted to droughty soil conditions. Irrigation can be helpful in establishing and maintaining lawns and landscaping plants."

Map Units 31, 33, 35, 63

"pSEP", "04", "Septic tank absorption field laterals should be installed on a slight downslope gradient."

Map Units 33, 63

"qLRS", "04", "This soil has no significant limitations important in the construction of local roads and streets."

Map Unit 39, 60

"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 stem 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."

Map Unit 27

"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."

Map Unit 39

"oURB", "07", "Suitability is poor for most urban uses because of a seasonal high water table and limestone bedrock 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. Landscaping considerations should include use of species that are adapted to fine textured soils."

Map Unit 31, 35

"oURB", "08", "Suitability is moderate for most urban uses because of 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 fine textured soils."

Map Units 2, 27, 28, 31, 35, 60

"qLRS", "10", "This soil has moderate 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 26

"oURB", "11", "Suitability is moderate for most urban uses because of fine textured soil material within 20 to 40 inches of the surface and limestone bedrock. Landscaping considerations should include use of species that are adapted to some droughtiness during parts of the year as well as alkalinity and fine textured soil material. Irrigation can be helpful in establishing and maintaining lawns and landscaping plants."

Map Unit 26

"pSEP", "11", "Fine textured soil material within 20 to 40 inches of the soil surface and bedrock interferes with the absorption of effluent from septic tanks. Risks of contamination to adjacent surface waters and system failure exist. Absorption fields can be mounded slightly to maintain the system above fine textured soil layers. Excavation and replacement of soil material and absorption field area expansion are other alternatives. Absorption fields should be installed downslope of dwellings."

Map Units 3, 4, 8, 11, 14, 15, 18, 19, 25, 32, 47, 54, 56, 61

"oURB", "12", "This soil is well suited to most urban uses. There are no significant limitations. Landscaping considerations should include use of species that are adapted to droughty soil conditions. Irrigation can be helpful in establishing and maintaining lawns and landscaping plants."

Map Units 3, 4, 8, 11, 14, 15, 18, 19, 25, 32, 47, 54, 56, 61

"pSEP", "12", "Septic tank absorption field laterals should be installed on a slight downslope gradient."

Map Units 3, 4, 8, 11, 14, 15, 18, 19, 25, 32, 47, 54, 56, 61

"qLRS", "12", " This soil has no significant limitations important in the construction of local roads and streets."

Map Unit 60

"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."

Map Units 2, 27, 28, 29, 30, 41

"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."

Map Units 2, 27, 28, 29, 30, 41

"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."

Map Units 2, 27, 28, 29, 30, 41

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

Map Units 20, 22, 37, 48, 55

"oURB", "15", "This soil survey map unit is so variable that no general suitability for urban land use can be given. On-site investigation by a soil scientist and/or engineer is recommended for any urban land use."

Map Units 20, 22, 37, 48, 55

"pSEP", "15", "This soil survey map unit is so variable that no general interpretations for the installation of any type on-site sewage disposal system can be given. On-site investigation by a soil scientist and/or engineer is recommended."

Map Units 20, 22, 37, 48, 55

"qLRS", "15", "This soil survey map unit is so variable that no general interpretations for the construction of local roads and streets can be given. On-site investigation by a soil scientist and/or engineer is recommended."

Map Units 23, 38, 40, 49

"oURB", "19", "This soil is not suited to urban uses due to tidal flooding."

Map Units 23, 38, 40, 49

"pSEP", "19", "This soil is not suited to any on-site sewage disposal system due to wetness and tidal flooding."

Map Units 23, 38, 40, 49

"qLRS", "19", "These soils have no significant limitations for local roads and streets."

Map Unit 16, 17, 54

"oURB", "20", "These soils are mainly used for urban development."

Map Unit 16, 17, 54

"pSEP", "20", "These soils have no significant limitations for septic tank absorption fields."

Map Unit 16, 17, 54

"qLRS", "20", "These soils have no significant limitations for local roads and streets."

Map Units 13, 24

"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."

Map Units 13, 24

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

Map Units 13, 24

"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 Statement

uNUT – Nutrient Management Statement

Map units 16, 17, 18, 19, 54

"sWQ","01","These soils have a low potential for pesticide leaching to groundwater and a low potential for pesticide runoff to surface water. They have a medium or high potential for nitrogen leaching to groundwater and a low potential for phosphorous runoff to surface runoff."

"tPES","01","The Florida Pest Control Guide contains a listing of pesticides suitable for each type of pest and is available from the Cooperative Extension Service. Read and follow pesticide labels."

"uNUT","01","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 should be added at the rate needed by the crop grown or according to the producer's goals, whichever is lower."

Map Units 3, 4, 8, 11, 14, 15, 20, 22, 23*, 29, 30, 31, 32, 35, 41, 47, 48, 56, 61

"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) 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","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 2, 5, 6, 7, 9, 10, 12, 13, 23*, 24, 27, 28, 37, 38, 39, 40, 49, 50, 52, 55, 57, 58, 60, 64

"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 25, 26, 33, 36, 46, 51, 53, 59, 62, 63

"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."