



Note: Recharge potentials for the shallow aquifer are estimated on basis of the intrinsic properties (refer to footnotes 2 and 3) that describe the water transmitting and storage capabilities of the various soils. The occurrence of recharge to the shallow aquifer also requires that there be soil space available, above the water table, for transitory storage of the recharge water; occurrence of recharge to the Floridan aquifer additionally requires that the prevailing water-table altitude be higher than the Floridan potentiometric surface, and that intervening materials between the shallow and Floridan aquifers be permeable. Thus, in effectively using sheet 7 as a recharge map, it should be compared with sheets 3 and 5.

SHARPES QUADRANGLE, FLORIDA
1949, PHOTOREVISED 1970,
7.5-MINUTE SERIES, 1:25000

Soil series are grouped by permeability² and the available water capacity.³ The classification of soil recharge potential shows the ability of a soil type to provide potential recharge water to the unconsolidated materials below 80 inches. Soil recharge potential was estimated by the authors. Soils were scale-modified from aerial photos in the publication, Soil survey for Brevard County, Florida (U.S. Department of Agriculture, Soil Conservation Service, 1974). Soil series were taken from the Cooperative Soil Survey program in 1965 as listed in the 1974 report (Simonson, 1963, and U.S. Department of Agriculture, 1960, supplements in 1967 and 1968), (references, sheet 3).

¹ U.S. Department of Agriculture, Soil Conservation Service, 1974.

² Permeability--The quality that enables the soil to transmit water or air, in inches per hour.

³ Available water capacity--The capacity of soils to hold water available for use by most plants. It is commonly defined as the difference between the amount of soil water at field capacity and the amount at wilting point. It is commonly expressed as inches of water per inch of soil.

EXPLANATION

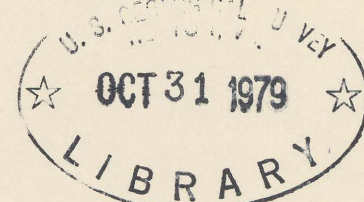
- ✕ Mining operation (sand, limestone, or marl pits).
- made land Filled land.
- w Water body (borrow pit, small ponds, and canals).

Map Pattern	Soil series ¹	Permeability (in/h) ^{1,2}	Available Water Capacity ^{1,3} (in/in of soil)	Recharge Potential (estimated)			
	Ca-Cc (Canaveral)	more than 20	02-05	excellent			
	Ga (Galveston)						
	Or (Orsino)						
	Pb (Palm Beach)						
	PFB-PFD-Ph (Paola)						
	Sa (Satellite)						
	SFB-SFD (St. Lucie)						
	We (Welaka)						
	Ba (Basinger)						
	Pw (Pompano)						
	Sb (St. Johns)						
	Ta (Taverners)						
	Va (Vaikaria)						
	As-At (Astatula)						
			Co (Cocoa)		6-20	02-05	good to very good
Ps-Pu (Pamella)							
An (Anclotte)							
Ea (Eau Gallie)							
Cp (Copeland)							
Eu-Ew (Eau Gallie)							
Tc (Terra Ceia)							
Ho (Hoapaw)							
Pn-Pa (Pineda)							
Pp (Pineda dark surface grad.)							
Od (Oldsmar)							
		Fa-Fd (Felda)	6-6	10-15		poor	
		Im (Immokalee)					
		Ma (Malabar)					
		Mu-Mk (Myakka)					
	Pk (Parkwood)						
	Sc (St. Johns)						

Map Pattern	Soil series ¹	Permeability (in/h) ^{1,2}	Available Water Capacity ^{1,3} (in/in of soil)	Recharge Potential (estimated)
	Fe-Fq (Felda)	6-6	10-15	poor
	Mc (Mico)	6-6	10-15	
	Br (Bradenton)	6-6	15-20	
	Tw (Tomoka)	6-6	10-25	
	Ch (Chobee)	6-2	10-15	
	Fn-Fo (Floridana)	10-15		
	Mb (Malabar)			
	Me (Montverde)			
	Cd (Canova)			
	Mp (Myakka)			
	Wa (Wabasso)			
	Wn (Winder)			
	Sw (Swamp)	Usually includes areas classed for water retention. Permeabilities vary but are considered low.		poor
	Ck (coastal beaches)	Affected by ocean tides and salt water intrusion. There is little fresh-water recharge to any shallow water-bearing zone.		poor
	Tm (tidal marsh)			
	Ts (tidal swamp)			
	Sp (spoil bank)	Depicting urban or disturbed areas. Permeability depends on development techniques and vegetative culture.		variable
	Ur (urban land)			
	Qr (quartzipsamments, smoothed)			

OVERLAY MAP OF THE SHARPES QUADRANGLE, FLORIDA; SOIL TYPE AND PERMEABILITY AND SHALLOW AQUIFER RECHARGE POTENTIAL

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