

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 effect using sheet 7 as a recharge map, it should be compared with sheets 3 and 5.

TITUSVILLE QUADRANGLE, FLORIDA  
1949, PHOTOREVISED 1970,  
7.5-minute series, 1:24,000

Soil series are grouped by permeability and the available water capacity. 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 series 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 1962 as listed in the 1974 report (Simonsen, 1962, and U.S. Department of Agriculture, 1960, supplements in 1967 and 1968), (reference, 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

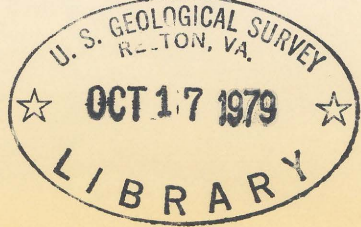
- Mining operation (sand, limestone, or marl pits).
- filled land.
- Water body (barnyard, small ponds, and canals).

Map Pattern	Soil series	Permeability (in/h) 1,2	Available Water Capacity (in/in of soil) 3	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)		02-05	
	Ba (Basinger)		03-07	
	Pw (Pompano)		03-08	
	Sb (St. Johns)		03-08	
	Ta (Tavernier)		03-08	
	Va (Valkaria)		03-08	
	As-At (Astatula)		05-10	
	Co (Cocoa)	6-20	02-05	good to very good
	Ps-Pu (Pomello)		02-05	
	An (Anclote)		05-10	
	Ea (Eau Gallie)		10-15	
	Cp (Copeland)		10-15	
	Eu-Ew (Eau Gallie)		10-15	
	Tc (Terra Ceia)		20-25	
	Ho (Holopaw)		10-15	
	Pr-Po (Pineda)		10-15	
	Pp (Pineda dark surface grad.)		10-15	
	Od (Oldsmar)	2-6	10-15	good to very good
	Fa-Fd (Felda)	6-6	10-15	poor
	Im (Imokalee)		6-6	
	Ma (Malabar)		6-2	
	Mu-Mk (Myakka)		6-2	
	Pk (Parkwood)		6-2	
	Sc (St. Johns)	6-2	10-15	poor

Map Pattern	Soil series <u>1</u>	Permeability (in/h) <u>1,2</u>	Available Water Capacity (in/in of soil) <u>3</u>	Recharge Potential ( estimated )
	Fe-Fq (Felda)	6-6	10-15	poor
	Mc (Micco)	6-6	10-15	
	Br (Bradenton)	6-6	15-20	
	Tw (Tomoka)	6-6	10-25	
	Ch (Chobee)	6-2	10-15	
	Fn-Fa (Floridana)			
	Mb (Malabar)			
	Me (Montverde)			
	Cd (Canova)			
	Mp (Myakka)			
Wa (Wabasso)	6-2	10-15	poor	
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 (quartzipsammments, smoothed)			

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

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1978



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C.J.