WYRICK 1960	LICHTLER 1960	CLARKE 1964	LEVE 1966	WOLANSKY 1978	MILLER 1980	BOGGESS 1986; ARTHUR AND OTHERS 2008	SWFWMD PRESENT
nonartesian aquifer	Shallow aquifer	water-table aquifer	shallow aquifer system	unconfined aquifer	surficial aquifer	surficial aquifer system	surficial aquifer
confining unit	*confining unit*	*confining unit*	*confining unit*	*confining unit*	*confining unit*	*confining unit*	*confining unit*

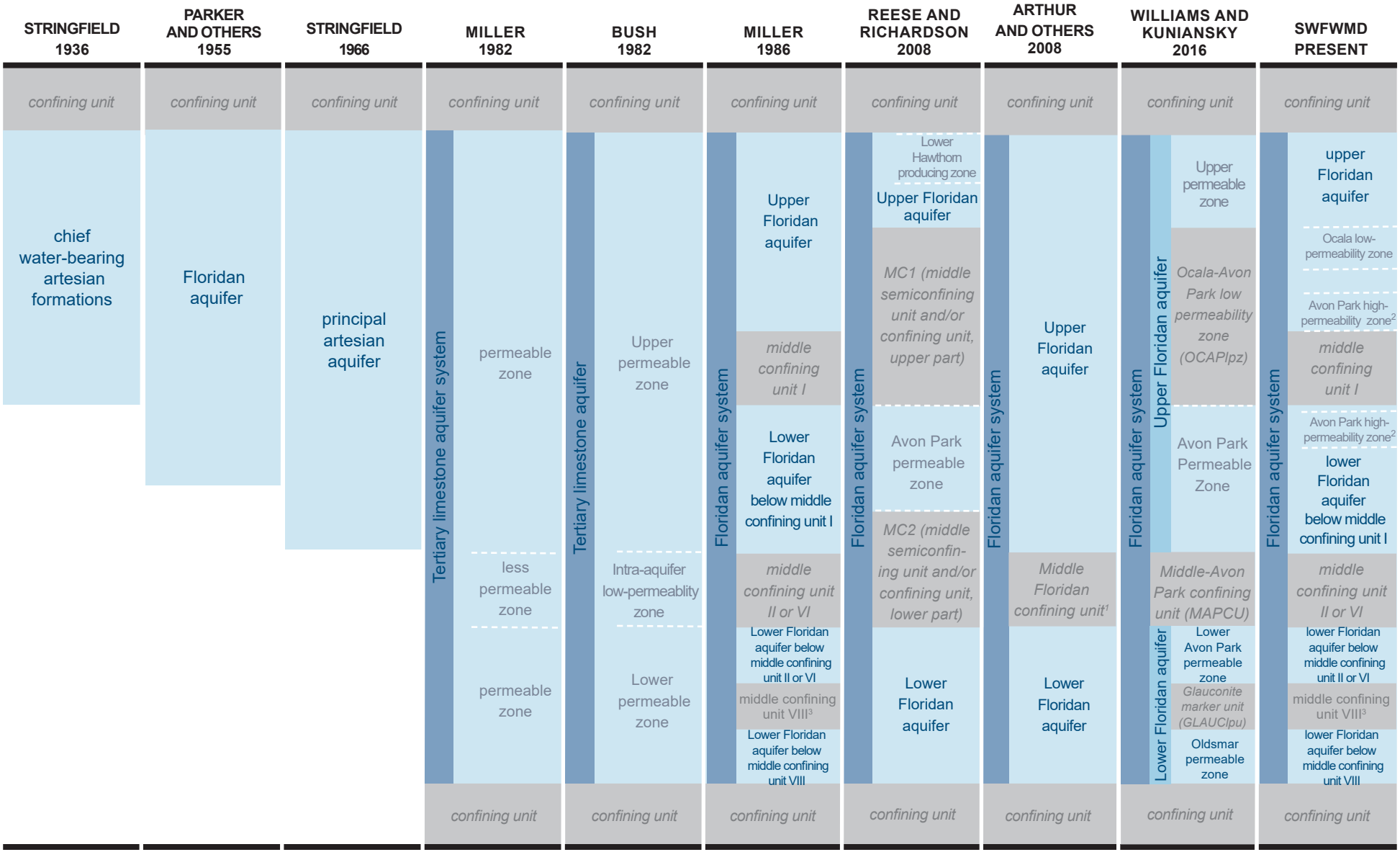
Not to scale

[SWFWMD, Southwest Florida Water Management District]

SPROUL AND OTHERS 1972	JOYNER, SUTCLIFFE 1976	WEDDERBURN AND OTHERS 1982	WOLANSKY 1983	BARR 1996	TORRES AND OTHERS 2001	KNOCHENMUS 2006	ARTHUR AND OTHERS 2008	SWFWMD PRESENT
confining unit	*confining unit*	Hawthorn Aquifer System: *confining unit*	*confining unit*	*confining unit*	*confining unit*	*confining unit*	*confining unit*	*confining unit*
sandstone aquifer	Zone 1	Hawthorn Aquifer System: Sandstone aquifer	Intermediate aquifers: Tamiami - upper Hawthorn aquifer	Intermediate aquifer system: Permeable Zone 1	Intermediate aquifer system: Tamiami/ Peace River zone (PZ1)	Intermediate aquifer system: Zone 1	Intermediate aquifer system / intermediate confining unit: zones/ aquifers were not delineated	Hawthorn aquifer system: Peace River aquifer
confining unit	*confining unit*	Hawthorn Aquifer System: *confining unit*	Intermediate aquifers: *confining unit*	Intermediate aquifer system: *confining unit*	Intermediate aquifer system: *confining unit*	Intermediate aquifer system: *confining unit*	Intermediate aquifer system / intermediate confining unit: *confining unit*	Hawthorn aquifer system: *confining unit*
upper Hawthorn aquifer	Zone 2	Hawthorn Aquifer System: mid-Hawthorn aquifer	Intermediate aquifers: *confining unit*	Intermediate aquifer system: Permeable Zone 2	Intermediate aquifer system: Upper Arcadia zone (PZ2)	Intermediate aquifer system: Zone 2	Intermediate aquifer system / intermediate confining unit: zones/ aquifers were not delineated	Hawthorn aquifer system: upper Arcadia aquifer
confining unit	*confining unit*	Hawthorn Aquifer System: *confining unit*	Intermediate aquifers: *confining unit*	Intermediate aquifer system: *confining unit*	Intermediate aquifer system: *confining unit*	Intermediate aquifer system: *confining unit*	Intermediate aquifer system / intermediate confining unit: *confining unit*	Hawthorn aquifer system: *confining unit*
lower Hawthorn aquifer	Zone 3	FAS: lower Hawthorn / Tampa producing zone	Intermediate aquifers: Lower Hawthorn - upper Tampa aquifer	Intermediate aquifer system: Permeable Zone 3	Intermediate aquifer system: Lower Arcadia zone (PZ3)	Intermediate aquifer system: Zone 3	Intermediate aquifer system / intermediate confining unit: zones/ aquifers were not delineated	Hawthorn aquifer system: lower Arcadia aquifer
confining unit	*confining unit*	FAS: *confining unit*	Intermediate aquifers: *confining unit*	Intermediate aquifer system: *confining unit*	Intermediate aquifer system: *confining unit*	Intermediate aquifer system: *confining unit*	Intermediate aquifer system / intermediate confining unit: *confining unit*	Hawthorn aquifer system: *confining unit*

Not to scale

[FAS, Floridan aquifer system; PZ, permeable zone; SWFWMD, Southwest Florida Water Management District]



Not to scale

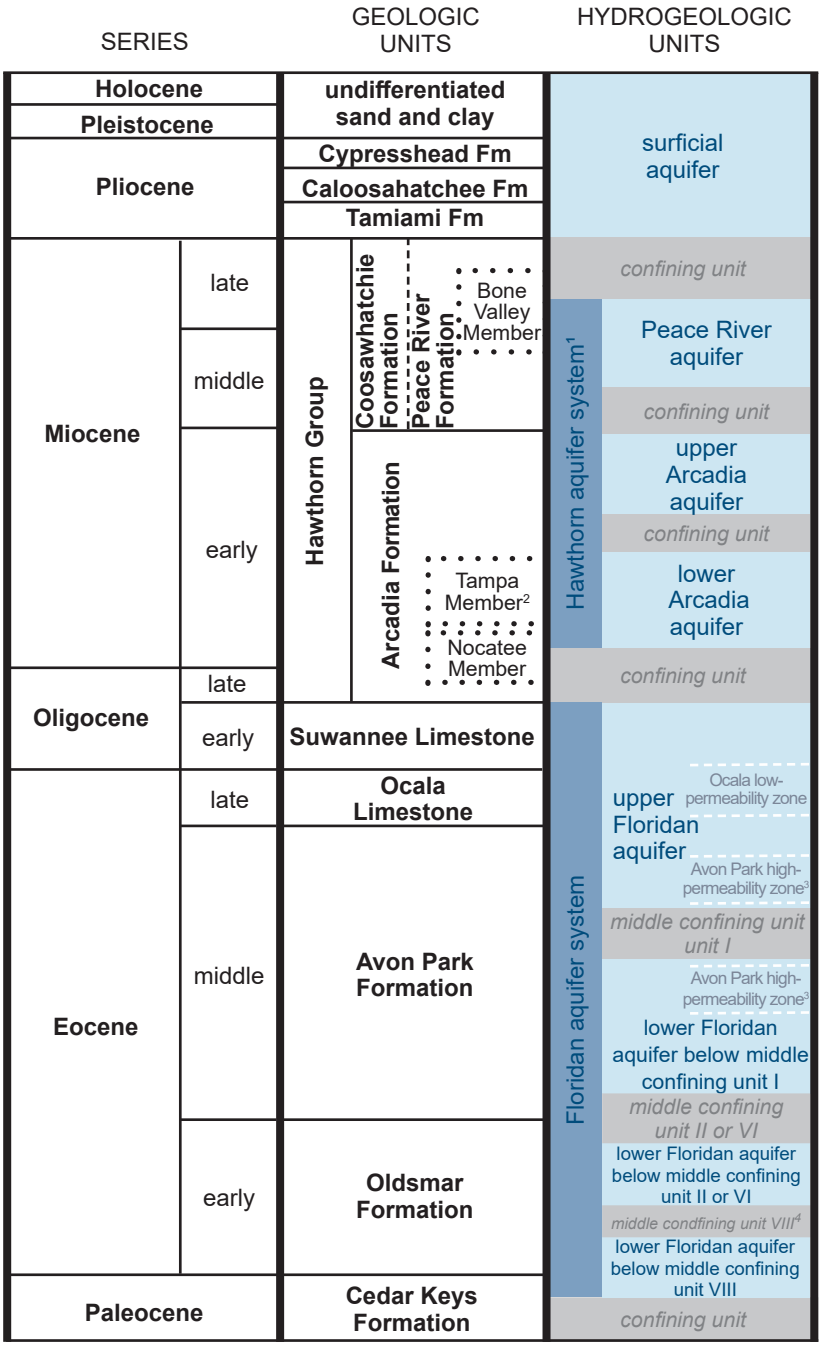
[Terms shown are for hydrogeologic units present within the Southwest Florida Water Management District (SWFWMD)]

[1]Arthur and others acknowledge existence of the middle confining unit I within the Southwest Florida Water Management but do not map it for Special Publication 68.

[2]The Avon Park high-permeability zone (SWFWMD fracture zone) crosses middle confining unit I in central Polk County; therefore, it is present above the middle confining unit I in northern Polk and below the middle confining unit I in southern Polk.

[3]The middle confining unit VIII of Miller (1986) in south Florida was extended across the entire peninsula as the Glauconite marker unit based on new data in Williams and Kuniansky (2016).

Southwest Florida Water Management District Stratigraphic Correlation Chart

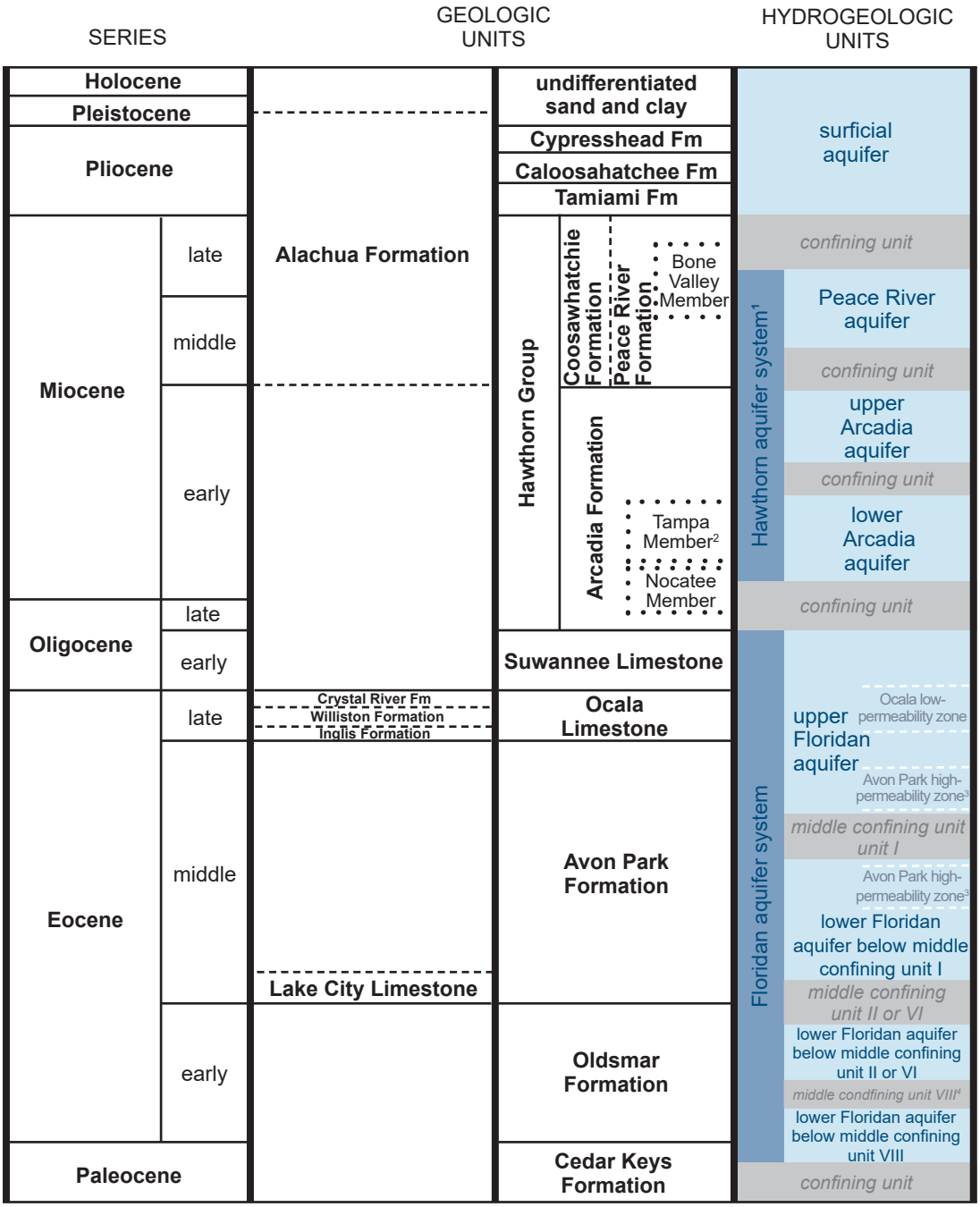


Not to scale

This chart may be used to correlate the chronostratigraphic and lithostratigraphic units of the current hydrogeologic framework model of the Southwest Florida Water Management District.

Note: [1]The Hawthorn aquifer system was previously referred to as the intermediate aquifer system. It is present only in the southern part of the District and pinches out north of central Hillsborough County. Where no aquifers are present, the Hawthorn sediments are confining and pinch out north of central Pasco County. [2]The upper Floridan aquifer includes the Tampa Limestone where confinement is not present. [3]The Avon Park high-permeability zone (SWFWMD fracture zone) crosses middle confining unit I in central Polk County; therefore, it is present above the middle confining unit I in northern Polk and below the middle confining unit I in southern Polk. [4]The middle confining unit VIII of Miller (1986) was extended beyond the original extent in south Florida based on new data (collected after 1986).

Southwest Florida Water Management District Stratigraphic Correlation Chart



Not to scale

This chart may be used to correlate the chronostratigraphic and lithostratigraphic units of the current hydrogeologic framework model of the Southwest Florida Water Management District.
Note: [1]The Hawthorn aquifer system was previously referred to as the intermediate aquifer system. It is present only in the southern part of the District and pinches out north of central Hillsborough County. Where no aquifers are present, the Hawthorn sediments are confining and pinch out north of central Pasco County. [2]The upper Floridan aquifer includes the Tampa Limestone where confinement is not present. [3]The Avon Park high-permeability zone (SWFWMD fracture zone) crosses middle confining unit I in central Polk County; therefore, it is present above the middle confining unit I in northern Polk and below the middle confining unit I in southern Polk. [4]The middle confining unit VIII of Miller (1986) was extended beyond the original extent in south Florida based on new data (collected after 1986).

SA References (in chronological order):

Wyrick, G.G., 1960, Ground-water resources of Volusia County, Florida: Florida Geological Survey Report of Investigations 22, 65 p. http://ufdcimages.uflib.ufl.edu/UF/00/00/12/06/00001/UF00001206.pdfLichtler, W.F., 1960, Geology and ground-water resources of Martin County, Florida: Florida Geological Survey Report of Investigations 23, 149 p.

Clarke, WE., Musgrove, R.M., Menke, G.C., and Cagle, J.W., Jr., 1964, Water resources of Alachua, Bradford, Clay, and Union Counties, Florida: Florida Geological Survey Report of Investigations 35, 170 p. https://publicfiles.dep.state.fl.us/FGS/FGS_Publications/RI/RI35.pdf

Leve, G.L., 1966, Ground water in Duval and Nassau Counties, Florida: Florida Geological Survey Report of Investigations 43, 91 p. https://publicfiles.dep.state.fl.us/FGS/FGS_Publications/RI/RI43.pdf

Wolansky, R.M., 1978, Feasibility of water-supply development from the unconfined aquifer in Charlotte County, Florida: U.S. Geological Survey Water-Resources Investigations Report 78-26, 34 p. https://pubs.usgs.gov/wri/1978/0026/report.pdf

Miller, W.L., 1980, Geologic aspects of the surficial aquifer in the Upper East Coast planning area, southeast Florida: U.S. Geological Survey Water-Resources Investigations Report 80-586, scale 1:62,500, 2 sheets. https://www.usgs.gov/publications/geologic-aspects-surficial-aquifer-upper-east-coast-planning-area-southeast-florida

Boggess, D.M., and Watkins, F.A., Jr., 1986, Surficial aquifer system in eastern Lee County, Florida: U.S. Geological Survey Water-Resources Investigations Report 85-4161, 59 p. https://doi.org/10.3133/wri854161

HAS References (in chronological order):

Sproul, C.R., Boggess, D.H., and Woodward, H.J., 1972, Saline-water intrusion from deep artesian sources in the McGregor Isles area of Lee County, Florida: Florida Bureau of Geology Information Circular 75, 30 p. http://publicfiles.dep.state.fl.us/FGS/FGS_Publications/IC/IC75PRIDE/FSGS%20IC%20No.75%201972.pdf

Joyner, B.F., and Sutcliffe, H. Jr., 1976, Water Resources of the Myakka River Basin Area, Southwest Florida: U.S. Geological Survey Water-Resources Investigations Report 76-58, 87 p. https://www.manatee.wateratlas.usf.edu/upload/documents/Water%20Resources%20of%20the%20Myakka%20River%20Basin%20Area,%20Southwest%20Florida.pdf

Wedderburn, L.A., Knapp, M.S., Waltz, D.P., and Burns, W.S., 1982, Hydrogeologic Reconnaissance of Lee County, Florida: South Florida Water Management District Technical Publication 82-1, pts. 1, 2, and 3, 192 p. https://www.sfwmd.gov/sites/default/files/documents/cuptech_sfwmd_techpub_82_01_lee.pdf

Wolansky, R.M., 1983, Hydrogeology of the Sarasota-Port Charlotte Area, Florida: U.S. Geological Survey Water-Resources Investigations Report 82-4089, 54 p. https://pubs.usgs.gov/wri/1982/4089/report.pdf

Barr, G.L., 1996, Hydrogeology of the Surficial and Intermediate Aquifer Systems in Sarasota and Adjacent Counties, Florida: U.S. Geological Survey Water-Resources Investigations Report 96-4063, 87 p. https://doi.org/10.3133/wri964063

Torres, A.E., Sacks, L.A., Yobbi, D.K., Knochenmus, L.A., and Katz, B.G., 2001, Hydrogeologic framework and geochemistry of the Hawthorn aquifer system in parts of Charlotte, De Soto, and Sarasota Counties, Florida: U.S. Geological Survey Water-Resources Investigations Report 01-4015, 74 p. https://doi.org/10.3133/wri014015

Knochenmus, L.A., 2006, Regional Evaluation of the Hydrogeologic Framework, Hydraulic Properties, and Chemical Characteristics of the Hawthorn Aquifer System Underlying Southern West-Central Florida: U.S. Geological Survey Scientific Investigations Report 2006-5013, 52 p. https://doi.org/10.3133/sir20065013

FAS References (in chronological order):

Stringfield, V.T., 1936, Artesian water in the Floridan peninsula: U.S. Geological Survey Water-Supply Paper 773-C, p. C115-C195. https://pubs.usgs.gov/wsp/0773c/report.pdf

Parker, G.G., Ferguson, G.E., Love, S.K., Hoy, N.D., Schroeder, M.C., Bogart, D.B., and Brown, R.H, 1955, Water resources of southeastern Florida: U.S. Geological Survey Water-Supply Paper 1255, 965 p. https://pubs.usgs.gov/wsp/1255/report.pdf

Stringfield, V. T., 1966, Artesian water in Tertiary limestone in the Southeastern States: U.S. Geological Survey Professional Paper 517, 226 p. https://pubs.usgs.gov/pp/0517/report.pdf

Miller, J. A., 1982, Geology and configuration of the base of the Tertiary limestone aquifer system, southeastern United States: U.S. Geological Survey Water-Resources Investigations 81-1176, 1 map sheet.

Bush, P. W., 1982, Predevelopment Flow in the Tertiary limestone aquifer, southeastern United States; A Regional Analysis from Digital Modeling: U.S. Geological Survey Water-Resources Investigations Report 82-905, 56 p. https://pubs.usgs.gov/of/1982/0905/report.pdf

Miller, J. A., 1986, Hydrogeologic Framework of the Floridan Aquifer System in Florida and in Parts of Georgia, Alabama, and South Carolina: U.S. Geological Survey Professional Paper 1403-B., 91 p.

Reese, R.S., and Richardson, E., 2008, Synthesis of the Hydrogeologic Framework of the Floridan Aquifer System and Delineation of a Major Avon Park Permeable Zone in Central and Southern Florida: U.S. Geological Survey Scientific Investigations Report 2007-5207, 60 p., 4 pls., plus apps. (on CD). https://doi.org/10.3133/sir20075207

Arthur, J.D., Fischler, C., Kromhout, C., Clayton, J.M., Kelley, M., Lee, R.A., O'Sullivan, M., Green, R.C., and Werner, C.L., 2008, Hydrogeologic Framework of the Southwest Florida Water Management District: Florida Geological Survey Bulletin No. 68, 102 p., 59 pls. http://fldeploc.dep.state.fl.us/geodb_query/fgs_doi.asp?searchCode=B68