

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

[SWFWMD, Southwest Florida Water Management District]

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

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

| STRINGFIELD<br>1936                              | PARKER<br>AND OTHERS<br>1955 | STRINGFIELD<br>1966              | MILLER<br>1982   | BUSH<br>1982   | MILLER<br>1986   | REESE AND<br>RICHARDSON<br>2008   | ARTHUR<br>AND OTHERS<br>2008                      | WILLIAMS AND<br>KUNIANSKY<br>2016                                       | SWFWMD<br>PRESENT  |
|--|------------------------------|----------------------------------|--|--|--|---|---|---|--|
| confining unit                                   | confining unit               | confining unit                   | confining unit   | confining unit   | confining unit   | confining unit  | confining unit                                    | confining unit  | confining unit   |
| chief<br>water-bearing<br>artesian<br>formations | Floridan<br>aquifer          | principal<br>artesian<br>aquifer | Tertiary limestone aquifer system<br>permeable<br>zone | Tertiary limestone aquifer<br>Upper<br>permeable<br>zone | Floridan aquifer system<br>Upper<br>Floridan<br>aquifer              | Lower<br>Hawthorn<br>producing<br>zone<br>Upper<br>Floridan<br>aquifer        | Upper<br>Floridan<br>aquifer                      | Upper<br>Floridan<br>aquifer<br>Upper<br>permeable<br>zone              | Upper<br>Floridan<br>aquifer   |
|  |                              |                                  |  |  | middle<br>confining<br>unit I  | MC1 (middle<br>semiconfining<br>unit and/or<br>confining unit,<br>upper part) |   | Ocala-Avon<br>Park low<br>permeability<br>zone<br>(OCAPIpz)             | Ocala low-<br>permeability<br>zone                                     |
|  |                              |                                  | less<br>permeable<br>zone                              | Intra-aquifer<br>low-permeability<br>zone                | Lower<br>Floridan<br>aquifer<br>below middle<br>confining unit I     | Avon Park<br>permeable<br>zone  |   | Avon Park<br>Permeable<br>Zone  | Avon Park high-<br>permeability zone <sup>2</sup>                      |
|  |                              |                                  | permeable<br>zone                                      | Lower<br>permeable<br>zone                               | middle<br>confining<br>unit II or VI                                 | MC2 (middle<br>semiconfining<br>unit and/or<br>confining unit,<br>lower part) | Middle<br>Floridan<br>confining unit <sup>1</sup> | Middle-Avon<br>Park confining<br>unit (MAPCU)                           | middle<br>confining<br>unit I  |
|  |                              |                                  |  |  | Lower Floridan<br>aquifer below<br>middle confining<br>unit II or VI | Lower<br>Floridan<br>aquifer  | Lower<br>Floridan<br>aquifer                      | Lower<br>Floridan<br>aquifer<br>Lower<br>Avon Park<br>permeable<br>zone | Avon Park high-<br>permeability zone <sup>2</sup>                      |
|  |                              |                                  |  |  | middle confining<br>unit VIII <sup>3</sup>                           |   |   | Glauconitic<br>marker unit<br>(GLAUCIpu)                                | Lower<br>Floridan<br>aquifer<br>below middle<br>confining<br>unit I    |
|  |                              |                                  |  |  | Lower Floridan<br>aquifer below<br>middle confining<br>unit VIII     |   |   | Oldsmar<br>permeable<br>zone  | Lower<br>Floridan<br>aquifer<br>below middle<br>confining<br>unit VIII |
|  |                              |                                  | confining unit   | confining unit   | confining unit   | confining unit  | confining unit                                    | confining unit  | confining unit   |

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

<sup>1</sup>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.

<sup>2</sup>The Avon Park high-permeability zone (SWFWMD fracture zone) crosses middle confining unit I in central Polk County; therefore, it occurs above the middle confining unit I in northern Polk and below the middle confining unit I in southern Polk.

<sup>3</sup>The middle confining unit VIII of Miller (1986) in south Florida was extended across the entire peninsula based on new data in Williams and Kuniansky (2015) and reidentified as the Glauconite marker unit.

Southwest Florida Water Management District Stratigraphic Correlation Chart

|                    |        |                                       |  |  |
|--------------------|--------|---------------------------------------|--|--|
| <b>Holocene</b>    |        | <b>undifferentiated sand and clay</b> |  | surficial aquifer  |
| <b>Pleistocene</b> |        | <b>Cypresshead Fm</b>                 |  |  |
| <b>Pliocene</b>    |        | <b>Caloosahatchee Fm</b>              |  |  |
|                    |        | <b>Tamiami Fm</b>                     |  |  |
| <b>Miocene</b>     | late   | <b>Hawthorn Group</b>                 | <b>Coosawhatchie Formation</b>   | confining unit   |
|                    | middle |                                       | <b>Peace River Formation</b>   | Peace River aquifer  |
|                    | early  |                                       | <b>Arcadia Formation</b>   | confining unit   |
| <b>Oligocene</b>   | late   |                                       | <ul style="list-style-type: none"> <li>• Bone Valley Member</li> <li>• Tampa Member</li> <li>• Nocatee Member</li> </ul> | <ul style="list-style-type: none"> <li>upper Arcadia aquifer</li> <li>confining unit</li> <li>lower Arcadia aquifer</li> </ul>   |
|                    | early  | <b>Suwannee Limestone</b>             |  | confining unit   |
| <b>Eocene</b>      | late   | <b>Ocala Limestone</b>                |  | <ul style="list-style-type: none"> <li>Ocala low-permeability zone</li> <li>Upper Floridan aquifer</li> <li>Avon Park low-permeability zone<sup>2</sup></li> </ul>   |
|                    | middle | <b>Avon Park Formation</b>            |  | <ul style="list-style-type: none"> <li>middle confining unit I</li> <li>Avon Park low-permeability zone<sup>2</sup></li> <li>Lower Floridan aquifer below middle confining unit I</li> <li>middle confining unit II or VI</li> </ul> |
|                    | early  | <b>Oldsmar Formation</b>              |  | <ul style="list-style-type: none"> <li>Lower Floridan aquifer below middle confining unit II or VI</li> <li>middle confining unit VIII<sup>3</sup></li> <li>Lower Floridan aquifer below middle confining unit VIII</li> </ul>       |
| <b>Paleocene</b>   |        | <b>Cedar Keys Formation</b>           |  | confining unit   |

*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: <sup>1</sup>The Hawthorn aquifer system was previously referred to as the Intermediate aquifer system. <sup>2</sup>The Avon Park high-permeability zone (SWFWMD fracture zone) crosses middle confining unit I in central Polk County; therefore, it occurs above the middle confining unit I in northern Polk and below the middle confining unit I in southern Polk. <sup>3</sup>The middle confining unit VIII of Miller (1986) was extended beyond the original extent in south Florida based on new data.*

Southwest Florida Water Management District Stratigraphic Correlation Chart

|  |        |  |   |  |
|--|--------|--|---|--|
| <b>Holocene</b>  |        |  | <b>undifferentiated sand and clay</b>   | surficial aquifer  |
| <b>Pleistocene</b>   |        |  | <b>Cypresshead Fm</b>   |  |
| <b>Pliocene</b>  |        |  | <b>Caloosahatchee Fm</b>  |  |
|  |        |  | <b>Tamiami Fm</b>   |  |
| <b>Miocene</b>   | late   | <b>Alachua Formation</b>                                     | <b>Hawthorn Group</b><br>Coosawhatchie Formation<br>Peace River Formation<br>Bone Valley Member | confining unit   |
|  | middle |  |   | Peace River aquifer  |
|  | early  |  |   | confining unit   |
| <b>Oligocene</b>   | late   |  | <b>Arcadia Formation</b><br>Tampa Member<br>Nocatee Member                                      | upper Arcadia aquifer  |
|  | early  |  |   | confining unit   |
| <b>Eocene</b>  | late   | Crystal River Fm<br>Williston Formation<br>Ingalls Formation | <b>Suwannee Limestone</b>   | lower Arcadia aquifer  |
|  | middle |  | <b>Ocala Limestone</b>  | confining unit   |
|  |        |  |   | <b>Upper Floridan aquifer</b><br>Ocala low-permeability zone   |
|  | early  | <b>Lake City Limestone</b>                                   |   | <b>Avon Park Formation</b>   |
| <b>Lower Floridan aquifer below middle confining unit I</b><br>middle confining unit I |        |  |   |  |
| <b>Paleocene</b>   |        |  | <b>Oldsmar Formation</b>  | Avon Park low-permeability zone <sup>2</sup>   |
|  |        |  |   | <b>Lower Floridan aquifer below middle confining unit II or VI</b><br>middle confining unit II or VI |
|  |        |  | <b>Cedar Keys Formation</b>   | Lower Floridan aquifer below middle confining unit II or VI  |
|  |        |  |   | middle confining unit VIII <sup>3</sup>  |
|  |        |  |   | Lower Floridan aquifer below middle confining unit VIII  |
|  |        |  |   | confining unit   |

*This chart may be used to correlate the stratigraphic units in past reports to the current hydrogeologic framework model of the Southwest Florida Water Management District.*

*Note: <sup>1</sup>The Hawthorn aquifer system was previously referred to as the Intermediate aquifer system. <sup>2</sup>The Avon Park high-permeability zone (SWFWMD fracture zone) crosses middle confining unit I in central Polk County; therefore, it occurs above the middle confining unit I in northern Polk and below the middle confining unit I in southern Polk. <sup>3</sup>The middle confining unit VIII of Miller (1986) was extended beyond the original extent in south Florida based on new data.*

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NOTES: Figure captions to be used for reports are below. For figure 1, *A*, *B*, *C* will need to be added to the top left corner of each aquifer/aquifer system correlation chart. Do not include the reference and notes pages in the appendix. Instead include the references in the Selected References of the main report.

Figure F1. Nomenclature of (*A*), the surficial aquifer, (*B*), the Hawthorn aquifer system, and (*C*), the Floridan aquifer system used for the ROMP ## – Name well site compared to nomenclature in previously published reports.

Figure F1. **(Continued)** Nomenclature of (*A*), the surficial aquifer, (*B*), the Hawthorn aquifer system, and (*C*), the Floridan aquifer system used for the ROMP ## – Name well site compared to nomenclature in previously published reports.

Figure F2. Chart correlating chronostratigraphic and lithostratigraphic units to the current hydrogeologic framework of the Southwest Florida Water Management District.

Figure F3. Chart correlating lithostratigraphic units used in past reports to current lithostratigraphic units and the current hydrogeologic framework of the Southwest Florida Water Management District.