Open-File Map Series 116, Plate 1
*See Open-File Report 113 for accompanying text

This geologic map was funded in part by the USGS National Cooperative Geologic Mapping Program

Florida Department of Environmental Protection
Florida Geological Survey

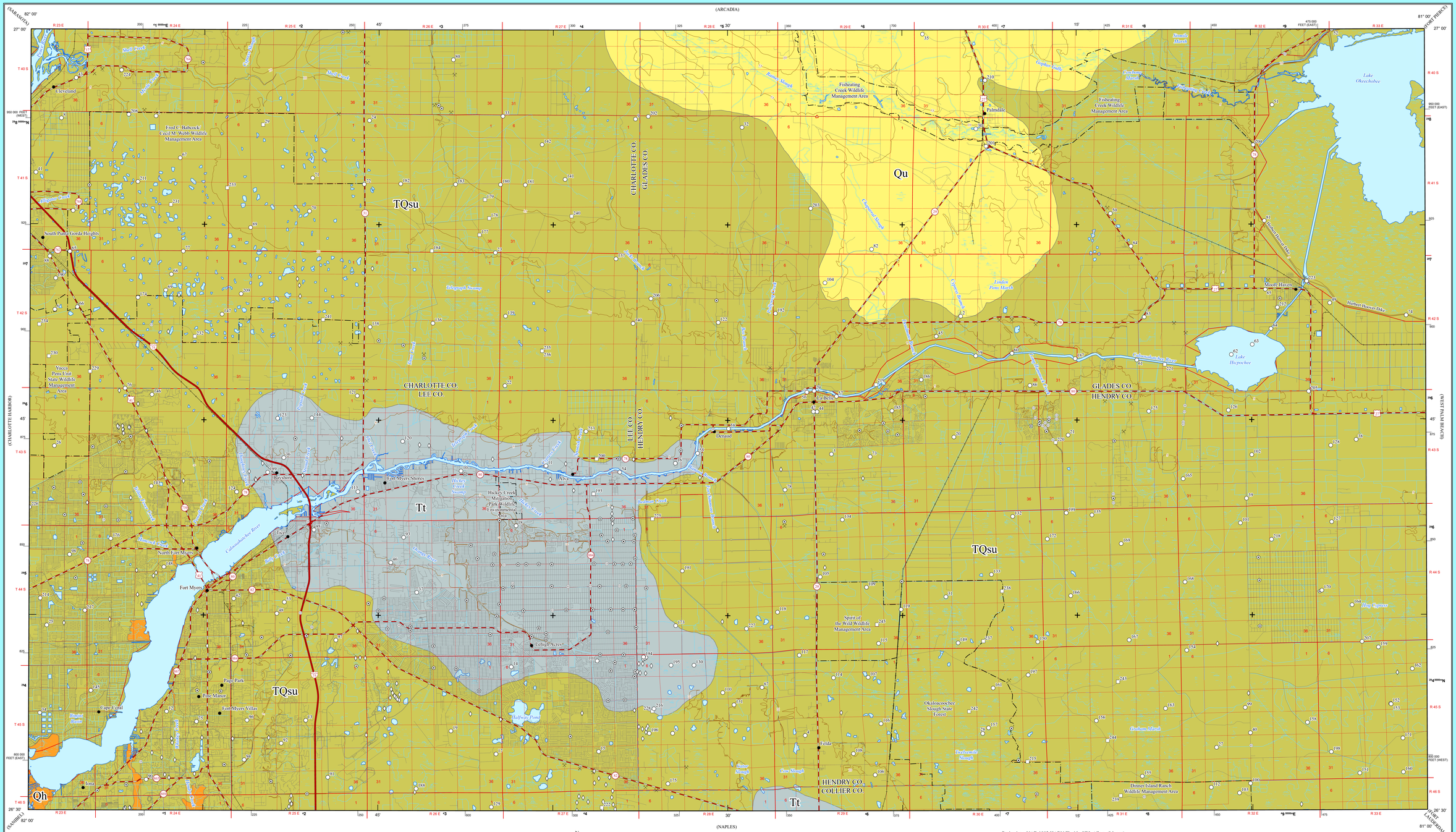
Guy H. Means
State Geologist and Director

OPEN-FILE MAP SERIES 116, Plate 1

GEOLOGIC MAP OF THE USGS FORT MYERS 30 X 60 MINUTE QUADRANGLE, SOUTHWESTERN FLORIDA

2024

BY
RICHARD C. GREEN, (P.G. # 1776), NICKOLAUS P. HALL, PRESTON A. EARLEY, CRYSTAL L. HEBETS, SEAN A. JONES, AND CHRISTOPHER P. WILLIAMS



SCALE 1:100,000
1 CENTIMETER ON THE MAP REPRESENTS 1 KILOMETER ON THE GROUND
CONTOUR INTERVAL 5 METER
Elevations shown to the nearest meter

Projection: NAD 1983 HARN Florida GDL Albers (Meters)
Horizontal Datum: North American Datum 1983 HARN (NAD83 HARN)
Vertical Datum: North American Vertical Datum 1988 (NAVD88)
Basemap: Digital data compiled by the Florida Department of Environmental Protection / Florida Geological Survey (2024)

FORT MYERS, FLORIDA
2024

Holocene sediments

Qh While not a formally recognized lithostratigraphic unit, Holocene sediments (Qh) are mapped in order to facilitate a better understanding of Florida's geology. Holocene sediments may include quartz sands, marls, organics, and minor carbonate sands and mud. They may also include fresh-water gastropods and modern shells. Within the study area, these occur in the Lower Caloosahatchee River floodplain.

Quaternary undifferentiated sediments

Qu While not a formally recognized lithostratigraphic unit, Quaternary undifferentiated sediments (Qu) are mapped in order to facilitate a better understanding of Florida's geology. Quaternary undifferentiated sediments consist of white to gray to orange, fine- to coarse-grained, clean to clayey, unfossiliferous quartz sands, sandy clays, and clays with variable admixtures of organics. These occur in the north-central area of the map.

Tertiary/Quaternary undifferentiated shelly sediments

TQsu Tertiary/Quaternary undifferentiated shelly sediments (TQsu) typically consist of fine-to-medium quartz sand with variable amounts of calcilutite, silt, marine and fresh-water mollusk shells, and clay. Shells, which may vary from whole to fragments, are normally highly weathered and abraded and may occasionally become the dominant lithology. Other accessory minerals may include calcite, aragonite, mica, heavy minerals, and phosphate sand and gravel. Colors range from light gray to light-olive gray. In the study area, TQsu is predominantly in the form of unconsolidated sands with varying percentages of shell fragments.

Tamiami Formation

Tt The Pliocene Tamiami Formation (Tt) consists of a complex mixture of limestone, fossil shell beds, quartz sand, and clay. The lithology of the top of the Tamiami Formation, which can be highly variable over short distances, may include limestone, sandstone, quartz sand, marl, clay, or fossil shell beds. These facies are highly variable in thickness and change rapidly over short distances, making them difficult to delineate on geological maps, especially when using cuttings.

LEGEND

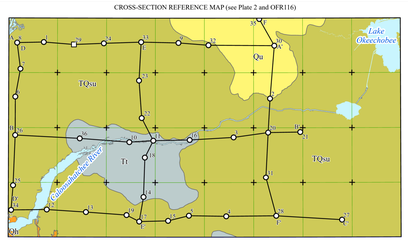
- Primary highway (SR 31)
- Secondary highway (80 / 721)
- Light duty road, principal street
- Railroad
- County boundary
- State lands and parks
- Contours (5m) Intermediate
- Core (1**)
- Cuttings (35**)
- M-Series sample
- Outcrop/exposure
- Consultant borehole
- Borrow pit
- Quarry / sand mine
- City/town
- USGS 1:24,000 Quadrangle tick mark
- Boreholes numbered 1 - 36 are used in cross sections on OFMS 116, Plate 2
- Waterbody
- Wetland
- River or stream
- Cross section line
- U.S. Public Lands Survey Township/ Range
- U.S. Public Lands Survey Section (36)

Basemap Coordinate Explanation
10,000-meter grid, zone 17: Universal Transverse Mercator
25,000-foot grid ticks based on Florida coordinate system, east and west zones
25g = 25g 0000mN
950 = 950 000 FEET (EAST)

Refer to Open-File Report 113, Appendix A for borehole information

Refer to OFMS 116, Plate 2 for Cross-Sections

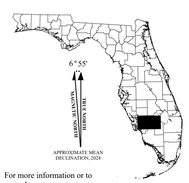
CROSS-SECTION REFERENCE MAP (see Plate 2 and OFR116)



ADJOINING MAPS

1	2	3
4		5
6	7	8

1. Sarasota (OFMS 86/87)
2. Arcadia (OFMS 87/88)
3. Fort Pierce (OFMS 113)
4. Charlotte Harbor
5. West Palm Beach (OFMS 114)
6. Sanibel
7. Naples (OFMS 117)
8. Fort Lauderdale (to be mapped in 2025)



For more information or to order maps contact:
Librarian, Florida Geological Survey
3000 Commonwealth Blvd., Suite 1
Tallahassee, FL 32303
850/ 617-0316
https://floridadep.gov/fgs/research/content/statemap

This map was created using Florida Department of Environmental Protection (DEP) databases and data obtained by the Florida Geological Survey (FGS). It was completed August 31, 2024, by the DEP/FGS, Geological Investigations Section. This document is prepared for the presentation of the geologic information shown and is not intended to replace site-specific or use-specific investigations. The FGS does not guarantee this document to be free from errors or inaccuracies and disclaims any responsibility or liability for inappropriate change of scale, interpretations, or decisions based thereon. Cooperatively funded by the DEP/FGS and the U.S. Geological Survey (USGS) National Cooperative Geologic Mapping Program under USGS assistance award number G22AC00572. The views and conclusions in this document are those of the authors and should not be interpreted as necessarily representing the official policies, either expressed or implied, of the U.S. government.

ISSN 1934-1830

Created August 2024