Open-File Map Series 102, Plate 1
*See Open-File Report 96 for accompanying text

This geologic map was funded in part by the USGS National Cooperative Geologic Mapping Program under assistance award number G10AC00426 in Federal fiscal year 2010.

Florida Department of Environmental Protection
Office of the Florida Geological Survey

Herschel T. Vinyard Jr.
Secretary

Jonathan D. Arthur
State Geologist and Director

OPEN-FILE MAP SERIES 102, Plate 1

GEOLOGIC MAP OF THE EASTERN PORTION OF THE USGS INVERNESS 30 X 60 MINUTE QUADRANGLE, CENTRAL FLORIDA

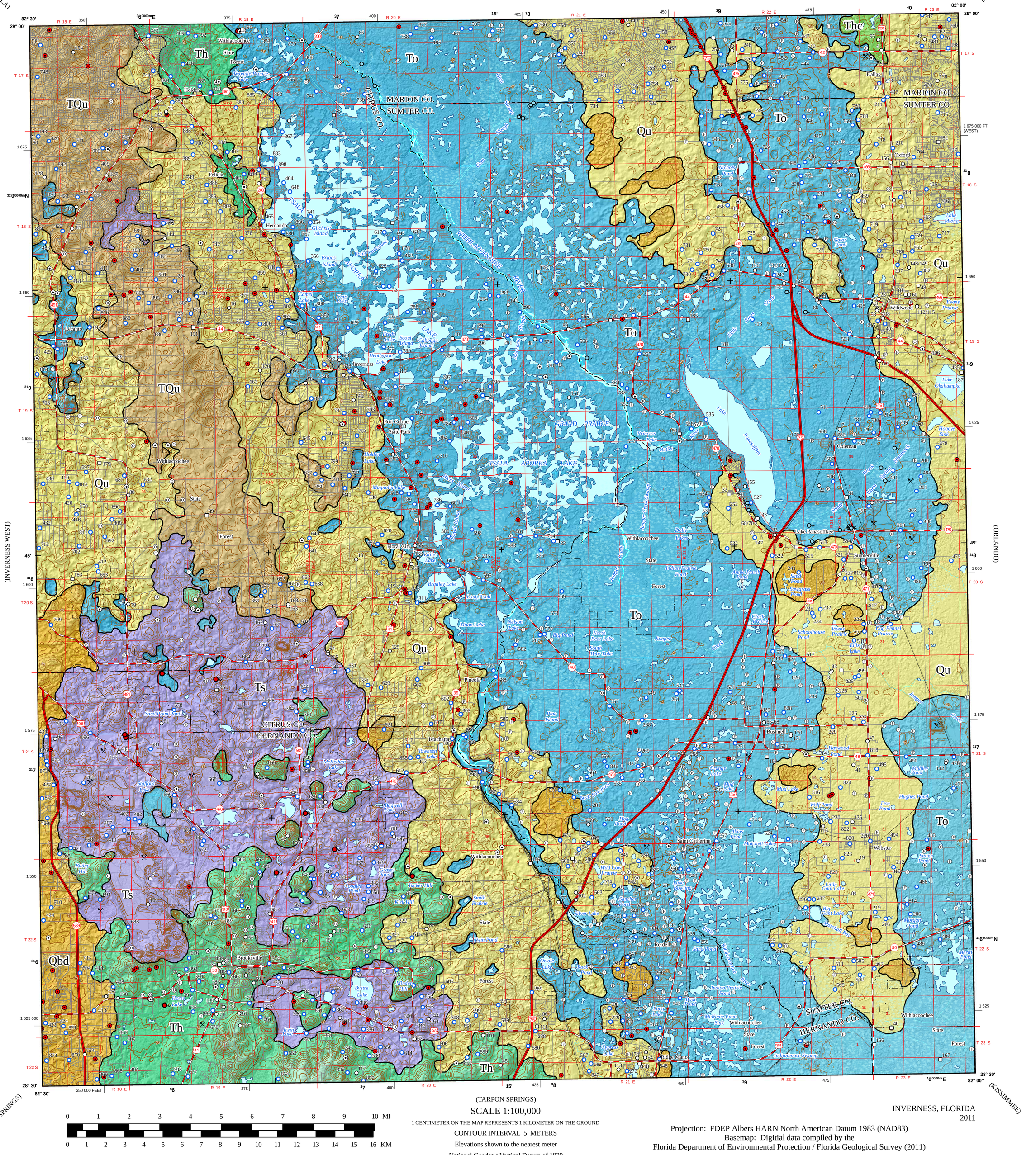
2011

BY

RICHARD C. GREEN, P.G. #1776, CHRISTOPHER P. WILLIAMS, P.G., KEVIN E. BURDETTE,
SETH W. BASSETT, ANDREW D. FLOR, AND DAVID T. PAUL, P.G.

INVERNESS, FLORIDA

30 X 60 MINUTE SERIES (TOPOGRAPHIC)



0 1 2 3 4 5 6 7 8 9 10 MI
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 KM

(TARPON SPRINGS)

SCALE 1:100,000

1 CENTIMETER ON THE MAP REPRESENTS 1 KILOMETER ON THE GROUND

CONTOUR INTERVAL 5 METERS

Elevations shown to the nearest meter

National Geodetic Vertical Datum of 1929

INVERNESS, FLORIDA
2011

Projection: FDEP Albers HARN North American Datum 1983 (NAD83)
Basemap: Digitial data compiled by the
Florida Department of Environmental Protection / Florida Geological Survey (2011)

LEGEND

Quaternary Beach Ridge and Dunes

Qbd — Beach ridge and dune sediments are dominantly siliciclastic sands and are unconsolidated to poorly consolidated. Organics typically occur as disseminated organic matrix, roots and plant debris, sometimes as carbonized remains or charcoal. Beach ridge and dune sediments are noted on the basis of topographic expression of beach ridges and dunes.

Undifferentiated Quaternary Sediments

Qu — Undifferentiated Quaternary sediments consist of white to gray to orange to blue-green, fine to coarse grained, clean to clayey unfossiliferous sands, sandy clays and clays with variable admixtures of organics.

Undifferentiated Tertiary-Quaternary Sediments

TQu — White to gray to orange to blue-green, fine to coarse grained, clean to clayey unfossiliferous sands, sandy clays, and clays with variable admixtures of organics. Undifferentiated Tertiary-Quaternary sediments are siliciclastics that are separated from the Undifferentiated Quaternary sediments on the basis of elevation. Pleistocene sea levels reached a maximum of approximately 100 feet (30.5 meters) above MSL. These sediments are predominantly older than Pleistocene but include sediments reworked during the Pleistocene. The unit may include fluvial and aeolian deposits.

Hawthorn Group, Undifferentiated

Th — The undifferentiated Hawthorn Group sediments are typically light olive gray and blue gray in unweathered sections and reddish brown in weathered sections. They consist of poorly- to moderately-consolidated clayey sands to silty clays and relatively pure clays with little to no phosphate (Scott, 2001).

Hawthorn Group, Coosawhatchie Formation

Thc — The Middle Miocene Coosawhatchie Formation typically ranges from a light gray to olive gray, poorly-consolidated, variably clayey sand with minor dolostone, to an olive gray, poorly- to moderately-consolidated, slightly sandy, silty clay. The unit may contain 20 percent or more phosphate but generally has less than 10 percent phosphate (Scott, 1988).

Suwannee Limestone

Ts — The Lower Oligocene Suwannee Limestone is typically gray, tan, light brown to moderate brown, moderately- to very well-indurated, finely- to coarsely-crystalline, with limited occurrences of fossiliferous beds. Fossils present in the unit include mollusks, foraminifera (*Fallotella* sp.), echinoids (*Rhyncholampas gouldii*) and corals. In the present field area the Suwannee Limestone is often highly karstified.

Ocala Limestone

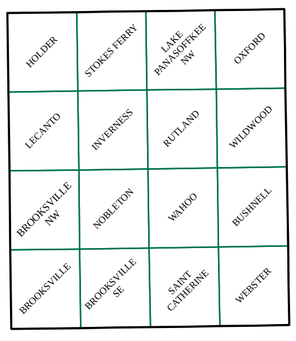
To — The Upper Eocene Ocala Limestone is a white to cream, fine- to coarse-grained, poorly- to well-indurated, sometimes poorly-sorted, fossiliferous limestone (wackestone, packstone, and grainstone). Fossils commonly include foraminifera (*Lepidocyclina ocalana*, *Nummulites* [*Camerina*] *willcoxi*, *Amphistegina pinarensis*, *Nummulites* [*Operculinoides*] *ocalana*), bryozoans, mollusks, echinoids, crabs, and shrimp.

Route marker: U.S.; State
Primary highway
Secondary highway
Light duty road, principal street
Railroad
County Boundary
National or State reservation boundary
Contours: 5 Meter Interval
Index
Intermediate
River or Stream
Lake or Pond
Wetland
U.S. Public Lands Survey Township/Range
U.S. Public Lands Survey Section

11* Core
27* Cuttings
207* Water Well
Archived M-Series Sample
Float
Outcrop / Exposure
Quarry or Borrow Pit
Swallet
Sinkhole
Spring

*Refer to Open-File Report 96, Appendix A for well information

* Wells numbered 1 - 40 are used in cross-sections on OFMS 102, Plate 2

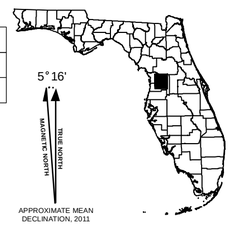


1:24,000 Quadrangle Grid

ADJOINING MAPS

1	2	3
		4
	5	6

1 Cedar Keys
2 Ocala
3 Daytona Beach
4 Orlando
5 Tarpon Springs
6 Kissimmee



For more information or to order maps contact Librarian:

Florida Geological Survey
903 W. Tennessee Street
Tallahassee, FL 32304-7716
850/617-0316
http://www.dep.state.fl.us/geology/programs/statemap.htm/

Basemap Coordinate Explanation

1927 North American Datum

10,000-meter grid, zone 17 North Universal Transverse Mercator

40 = 40 0000m E

25,000-foot grid ticks based on Florida coordinate system, west zone

425 = 425 000 FEET

This map was created using Florida Department of Environmental Protection (FDEP) databases and data obtained from the Florida Geological Survey (FGS). It was completed August 31, 2011, by the FGS Geological Investigations Section. This document was 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. This geologic map was funded in part by the USGS National Cooperative Geologic Mapping Program under assistance award number G10AC00426 in Federal fiscal year 2010. 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, 2011